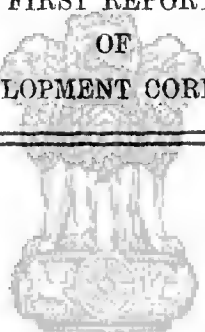




REPORT
OF
NATIONAL COAL
DEVELOPMENT
CORPORATION COMMITTEE
1968

FIRST REPORT
OF
NATIONAL COAL DEVELOPMENT CORPORATION COMMITTEE



सत्यमेव जयते

FEBRUARY, 1968

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I—INTRODUCTION

1.1 The Government of India Resolution No. C2-8(7)/67 dated 22nd July, 1967 requires us to review the performance of the National Coal Development Corporation Ltd. The Resolution states that there may be scope for improvement in matters such as planning, administrative and organisational set-up, staffing, procurement of equipment, control of stores, financial and budgetary control, management-employees relationship and marketing. The Resolution has asked us to identify and assess deficiencies in regard to all these aspects of the working of the National Coal Development Corporation and to suggest remedial action and the improvement that should be made in the policy and organisational set-up of the Corporation. In terms of this Resolution we were required to make our report to Government of India by the 31st October, 1967. A copy of this Resolution is appended as Appendix I.

1.2 Soon after we met and began our work, it became clear that a comprehensive review of the kind expected of us could not be made within the time-limit as stated in the Resolution. The Ministry of Steel, Mines and Metals (Department of Mines and Metals) was accordingly requested to extend the time to the 31st of January, 1968. On a further request, the time has now been extended to the 30th April, 1968.

1.3 We began our work by defining its scope. Within the time available to us (including the further extension to 31-1-1968) it would not have been possible to go into all matters of detail and that only a broad assessment of the more important problems relating to the working of the Corporation could be undertaken. We further considered that our principal task was to locate particular deficiencies and to suggest remedial measures for bringing about an improved working of the Corporation, for setting it on a sound working basis and for strengthening and preparing it for the tasks which it has to undertake in future.

1.4 Our terms of reference also specify that alleged malpractices and financial irregularities need to be looked into. Within the time available, it may not be possible to complete the examination of all such matters which have been brought to our notice. However, we propose to deal with this part of our work in a later report. The question of management-employee relationship and a number of other matters which are not dealt with in this first report, will also be taken up in the subsequent report.

1.5 With a view to ascertaining the points which should receive our attention, we wrote to all the Project Officers and Officers in charge of various collieries from the level of Colliery Manager to the Area General Manager asking them for replies to a specific questionnaire. In addition to the information which was called for from these Project Officers, and from the Project and Area Managers in regard to the plans and performance of the specific projects and collieries in their charge, we also requested them to make suggestions for improvement of the performance of the particular projects and collieries as well as of the Corporation on the whole. We asked

them more particularly to say more concretely, how production could be raised, machinery and plant kept in optimum working conditions and how costs of production could be reduced. In response to our request, several replies have been received. Replies have also been received from other technical staff officers in the field, like the maintenance and civil engineers, to whom the same questionnaire was sent at a subsequent date. A number of officers have made various suggestions for improving the organisational efficiency and performance. A copy of the questionnaire which was sent is attached to this report as Appendix II.

1.6 In addition to a detailed questionnaire which was sent to the Project and Area Managers, we also invited suggestions from the Directors of the Corporation (past and present) as well as from senior officers and heads of departments of the Corporation. In reply, we received a number of suggestions. We held discussions with many of these senior officers and Directors. We have also received statements from and held discussions with some Members of Parliament and also with representatives of unions of N.C.D.C. employees. These suggestions and discussions have helped us in making ourselves familiar with the working of the Corporation.

1.7 We have thus collected a large mass of material which it will take some more time to analyse before we reach our final conclusions. In the meantime, we have thought it advisable to make this first report on certain organisational aspects of the Corporation so that urgent attention is given to these problems. We have also briefly referred to certain immediate tasks to which early attention needs to be devoted by the National Coal Development Corporation and the Central Government.



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II—SOME HISTORICAL PERSPECTIVE

2.1 When the National Coal Development Corporation was established in 1956, coal was in great short supply. Coal demand was stated to be considerably greater than the over-all production of 38.0 million tonnes in 1954-55. Except for some 11 coal mines operated over many years by Railways and from 1952 onwards by Ministry of Production, and producing some 3 million tonnes and the Singareni Collieries of Andhra Pradesh, production of coal was in private hands. Thus, the coal industry was then essentially a private industry. Transport difficulties had aggravated the shortage of coal for several coal-based industries. The Second Five-Year Plan and the subsequent Plans calling for a rapid development of the industrial base of the country's economy, envisaged a very large and rapid increase in the demand of coal. The Industrial Policy Resolution of 1956 had included coal industry in its first Schedule requiring public sector to undertake investment in new productive units. These were the circumstances which led to establishment of National Coal Development Corporation. Its primary task as then envisaged was to work the State Collieries to maximum capacity, open out new mines, specially in outlying areas and thus augment the coal production to the requisite level. Emphasis was given to the starting of new mines and augmentation of productive capacity in the outlying fields of Madhya Pradesh, Orissa and Maharashtra with a view to reducing transport costs and to smoothening the transport bottleneck.

2.2 A brief glance through the targets of development and production which the NCDC undertook to fulfil during the Second and the Third Plan periods and their comparison with the actual production is sufficient to show that the performance was considerably below the target. At the end of the Second Plan period, the N.C.D.C. was expected to step up its production to 13 million tonnes per year. The actual production during 1960-61 was 8.05 million tonnes. However, during the last quarter of 1960-61, an all out effort was made to step up production without regard to the availability of transport for moving the coal from pit-heads. It would appear that the purpose of this special effort was to demonstrate that the N.C.D.C. had in fact built up capacity to produce coal to the level of its target and that it was the railway transport capacity which came in the way of adequate supplies being made to the consumers. The production during this last quarter was reported to be 3.39 million tonnes, equivalent to the annual rate of 13.56 million tonnes.

2.3 In retrospect, this move to demonstrate the production capacity of N.C.D.C. must be regarded as questionable from many points of view. Commercially, it was indeed imprudent to step up production and to accumulate pit-head stocks, with the consequential risks of spontaneous combustion and deterioration. There is evidence too that in a few cases, local officers attempted, rather unsuccessfully, to over-state the production figures. The sudden spurt in production also involved the danger that quality (particularly in regard to picking of shales, stones etc.) could not have been maintained.

2.4 Nevertheless, the performance during the last quarter of 1960-61 gave an indication that the N.C.D.C. was in a position to reach the level of production which was targetted for the Second Plan Programme. One after-effect of this artificial spurt was that immediately afterwards, the production had to be deliberately curtailed in order to clear the large pit-head stocks. On the 1st of April 1961, the pit-head stocks were 1.73 million tonnes which was equivalent to $2\frac{1}{2}$ months' average production for this period. In the immediately following year i.e. 1961-62, the production had to be brought down to 6.05 million tonnes.

2.5 For the Third Five-Year Plan, the target for N.C.D.C. was 31.0 million tonnes out of a total production target for the coal industry of 98.5 million tonnes. This target of 98.5 million tonnes appears to have been arrived at after collecting data as to the likely consumption of the important consumer units and consuming sectors. When these projections were made, coal was in short supply and the shortage of transport had aggravated the situation. It would appear that the consumers and the consuming sectors were prone to exaggerate their needs in the context of these scarcities. The method adopted in making these projections, therefore, tended to exaggerate the requirements especially as there seems to have been no more than a superficial check on the figures so collected. It has to be stated that the target was accepted by the Ministry and the Planning Commission. Certain projections made at the time of the mid-plan appraisal in 1963 projected the 1965-66 demand at 90 million tonnes while a study made by the World Bank Team published in June 1964 estimated the requirement in 1965-66 at 77 million tonnes. Actual production during 1965-66 was 67.73 million tonnes.

2.6 It was during the Third Plan period that the transport bottleneck progressively widened and by and large for the industry as a whole, it no longer became a restrictive factor in the production and supplies of coal. In actual fact, the total production of coal in 1965-66 i.e. the last year of the Third Five Year Plan, was only 67.73 million tonnes. This large shortfall from the target is accounted for partly by the earlier overestimates of demand and partly by the delays in undertaking and completion of a number of coal consuming projects, especially in steel production and power generation. The policy of increasing dieselisation and electrification of Railways, which came to be implemented since 1961-62, on a progressively larger scale, also had to effect of stabilising at a low figure, the demand for coal for locomotive use. In 1965-66, the actual production of the N.C.D.C. was 9.61 million tonnes.

2.7 It may be interesting to compare the increase in the production and sales of the N.C.D.C. with the corresponding increase in the production and sales for the coal industry as a whole, during the final years of the Second and the Third Five Year Plans. In 1960-61 N.C.D.C.'s production of coal was 8.05 million tonnes out of a total production of 55.67 million tonnes or 14.5%. In 1965-66, the total industry-wise production was 67.73 million tonnes and the N.C.D.C.'s production was 9.61 million tonnes or 14.2% of the total. While the overall production of the coal industry went up during these five years by 21.6% that of the N.C.D.C. had risen by 18.8%. The

special steps taken to step up the production during 1960-61 partly account for this slightly lower percentage rise of the production of N.C.D.C. In regard to the despatches from the collieries, the N.C.D.C. accounted for 6.10 million tonnes out of the total despatches of 47.78 million tonnes during 1960-61 i.e. 12.8% of the total despatches. In 1965-66 the N.C.D.C. despatched 9.47 million tonnes out of the total coal despatches of 60.61 million tonnes i.e. 15.6%. It would thus appear that both in terms of actual production and despatches or sales, the N.C.D.C.'s performance roughly corresponded with the performance of the entire industry.

2.8 However, when we compare the performance with the Third Plan targets of the Industry as a whole and of the N.C.D.C. respectively the story is different. N.C.D.C. had embarked on a very large expansion programme during the Third Five-Year Plan and there was a considerable shortfall in the fulfilment of the programme. It had incurred a total plan outlay of Rs. 93.5 crores in expanding its capacity from 13 million tonnes in 1960-61 to a targetted figure of 31.0 million tonnes in 1965-66. It was also expected at the time that the Fourth Plan would see yet further rise in the demand for coal. It was in these circumstances that the N.C.D.C. began during the Second and Third Plan periods, to acquire machinery and manpower and to develop coalmines in various areas and more particularly in the outlying areas of Madhya Pradesh, Orissa and Maharashtra. Some of the difficulties now faced by the N.C.D.C. are due to the magnitude of this development and the speed with which it was undertaken. It became clear sometime after the mid-term appraisal of the Third Plan in 1963 that for various reasons, the N.C.D.C.'s production capacity at the end of the Third Five-Year Plan would not be more than 22 or 23 million tonnes. The Corporation had brought this matter to the attention of the Government. By then, it was also known that the demand was not growing as fast as expected; but both the Corporation and the Government then thought it to be a temporary phase. The very next year i.e. 1964, when the demand continued to show a very slow rise, the N.C.D.C. found it necessary to review the development programmes and to suspend and defer several projects which it had undertaken, specially for non-coking coal and in the outlying areas. In as many as 7 locations, further work was abandoned after incurring an expenditure of about Rs. 4.5 crores mainly on buildings and townships as well as development of collieries.

The production and sales since 1965-66 have not been materially larger than those during that year; the figures for 1966-67 and for 8 months of 1967-68 are as follows :

						(In million tonnes)	
						1966-67	8 months of 1967-68
Production	..	..	..	..		9.39	6.60
Sales (Despatches)	..	..	..	..		9.12	6.36

Consequently, large and expensive projects which the Corporation had undertaken with a view to achieving the expected high target of coal demand have led to investment and acquisition of capital assets and man-power which are not presently needed for the current level of production.

2.9 A large and growing Organisation had been built up with some speed over a number of years in anticipation of a rapidly growing demand for production. As stated in the last paragraph, this process of growth continued till early 1964. Since 1964, several measures came to be taken for re-adjustments in the Organisation and retrenchment of personnel. In the process, several weaknesses which had not received adequate attention during the period of rapid growth and the subsequent phase of retrenchment, came to the surface and new stresses and strains also appeared as a result of re-adjustment. These affected all aspects of working of the Corporation.

2.10 As a public sector unit, one particular feature of the N.C.D.C. that deserves to be kept in mind is that, unlike many other public sector industries, the N.C.D.C. meets only a part, approximately 15% of total demand for its products. The rest of the supplies come from the private sector (with the exception of Singareni Collieries which produce about 4 million tonnes of coal.) The competition in the production and supply of coal is particularly keen, because as many as 800 different units are engaged in this industry. A large number of them (or as many as 523) are small units producing small quantities of coal not exceeding 5,000 tonnes each per month. It is believed that besides the N.C.D.C. and Singareni Collieries there are only some 15 or 16 important companies which mainly contribute to the production of coal, coking and non-coking. In respect of non-coking coal in particular, the N.C.D.C. had undertaken expensive development in virgin and isolated areas of Madhya Pradesh and Maharashtra. On the other hand, the competing collieries in the private sector, which had been working their mines for long years, found it easy and economical to step up their production in a relatively shorter time and without a large addition to the investment, by resorting to more intensive work in the mines, including permissible depillar-ing. The private sector was expected to raise its production from about 45 million tonnes in 1960-61 to 61.7 million tonnes in 1965-66. Its actual performance was 54.1 million tonnes. As the overall demand had not risen as expected, a fierce competition emerged and N.C.D.C. as a relative newcomer into the field had difficulties in expanding its sales and production above the levels that it reached. It may, however, be stated, as mentioned to us by several knowledgeable persons, that there has not been any significant new investment in the private sector in recent years, except for some three or four units.

2.11 When the present industrial recession is overcome and the economy of the country resumes its upward course towards rapid development especially in steel, engineering and the thermal power generation, the demand for coal would rise. While for some more years to come the private sector of the industry would continue to meet the rising demand, it is more likely that thereafter, and provided the economy picks up at the rate which is essential for our industrial growth, the N.C.D.C. could easily become the mainstay for meeting the increased fuel demand in the country. The more

immediate problem before the N.C.D.C., however, is to build up its sales in a competitive market. This will require measures for a continuous survey of its markets, long-term agreements with known bulk purchasers, quality control to build up its reputation as a reliable supplier and aggressive salesmanship. It should seek to maximise its production, particularly from those collieries which can be run more economically and which have certain freight advantages in supplies to particular customers. Equally, from the long term point of view it is important that the Corporation should take advantage of the present recessionary trend and of a lower growth in demand to put its house in order, remove its organisational and other weaknesses, economise on methods of production, make itself increasingly competitive with the private sector industry and set itself on a sound footing to meet the greater challenges which it would have to face during the years to come.

2.12 It is with a view to assisting the Corporation to streamline its structure and its methods of work and to draw its attention to the immediate tasks which need to be taken up to strengthen itself to meet the challenge of the future that this first Report is prepared and placed before, the Government of India.



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III—IMMEDIATE TASKS BEFORE THE N.C.D.C.

3.1. In an earlier paragraph, we have referred to the weaknesses which developed in the working of the N.C.D.C. during the period of its rapid growth. We also stated that these weaknesses and deficiencies came to surface when after 1964 the N.C.D.C. was required to reduce its rate of development and to undertake measures to suspend some of the developmental projects. Measures were also taken since 1964-65 to reduce some of its personnel and to dispose of some of the plant and machinery. These two phases of work of N.C.D.C. were followed during 1966-67 and 1967-68 when the post of the Managing Director was either vacant or was held by a person, otherwise distinguished in the field of mining engineering, but who was required to devote part of his attention to another large public sector project. The weaknesses and the deficiencies, referred to, remained unresolved throughout this period. Indeed many of them were aggravated, partly because they had not received requisite attention over a long period of years. Amongst these, the lack of teamwork, and a tendency that had developed of different departments working in their own ways may be mentioned as major organisational defects. Absence of whole-time leadership in management, therefore, resulted in a virtual crisis in management. It is not our intention in this first Report to deal with these matters in detail or to attribute responsibility for these weaknesses and deficiencies, but to briefly enumerate the various tasks which the Corporation should urgently take up with a view to placing its working on a sound footing.

3.2. Further, a recent change in trading conditions of coal, which has considerable impact on the working of the Corporation is the withdrawal of statutory control on prices and distribution of coal on 22-7-1967. It has to be noted that the coal trade and the consumers, no less than the coal producers, have been accustomed to conditions of control over a period of as long as 25 years. A generation of trade practices and procedures had developed during this period which were in tune with conditions of control. A reversion to decontrol and to the competitive market conditions has, therefore, added a new dimension to the work of the Corporation. As stated earlier in the Report, the N.C.D.C. is perhaps the only major public sector undertaking which encounters a great deal of competition for its market with the private sector. The removal of control on price and distribution means for the N.C.D.C., taking of special additional steps to canvass its sales. The sales procedure which was either rigid or adjusted to the various control measures, has now to be made more flexible. The decontrol should also bring certain competitive advantages to the Corporation. We have been told that during the period of control, when the supply was in excess of the demand, private sector often resorted to measures like secret rebates and discounts, sometimes even in violation of the control regulations. With decontrol such rebates and discounts could be openly given and the N.C.D.C. could also resort to the same price flexibilities as the private sector of the industry in canvassing its market. A second important consequence of the decontrol is that hereafter the competition would not only be

in terms of price but also in terms of quality and service. In these respects N.C.D.C. as a public sector organisation should be able to organise itself to play its part.

3.3. The tasks which require the immediate attention of the N.C.D.C. and the Government of India in several aspect of its working may now be summarised below :

(1) *Sales*—The most important problem facing the NCDC is to re-organise its sales office and the sales procedure. The directions in which this task should be undertaken are specified below :

(a) The Corporation should undertake a survey of the market, current and prospective. It appears that the N.C.D.C. has not undertaken any comprehensive survey of its market. In undertaking developmental projects it has relied on the targets and the general demand trend as indicated to it by the Ministry or the Planning Commission. The NCDC as a trading organisation should know its market. It should itself assume responsibilities for making comprehensive studies for this purpose. For such studies to be meaningful for sales promotion, there should be a separate market study for each mine or at the minimum, for each area of production. Coal being a bulky material, a large part of its cost to the consumer is the railway freight or other transport expenses. Therefore, for each mine there is a natural and economic area of marketability for its production; it should be possible for the NCDC to identify the particular areas in which each of its mines has this market potential and competitive advantage and to locate its principal customers in these areas.

(b) It should then establish close contacts with its principal prospective customers as determined above, both in private and public sectors and enter on an intensive canvassing effort for its sales. Emphasis is sometimes placed on reaching long term contracts with them. It would be possible to enter into such contracts, provided the customers are convinced that in price and quality and in service, as well as in guaranteed supply, N.C.D.C. would be a better supplier. Steps should therefore be taken by the NCDC to gain the confidence of the consumers in these directions. Normally, it is to be expected that the public sector units, belonging to the State and the Central Governments would obtain their supplies from the N.C.D.C. Suggestions have been placed before us that the Government should direct such units to obtain coal supplies from the N.C.D.C. We appreciate that such a measure would be consistent with the commercial practice, by which Companies managed by the same managing agents or otherwise linked often obtain their supplies from the sister companies, provided prices and conditions of supply are competitive. However, we do not suggest the issue of such a directive to public sector units. In any case, issue of such a directive to State Government Units may not be feasible and the major public sector units in the Central Sector, like Railways and Steel Plants are, we believe, already obtaining as large a part of these supplies as feasible from the N.C.D.C. A directive of the kind suggested has, therefore, a limited value. Moreover, we consider that the N.C.D.C. should be able to canvass its sales on the basis of its performance rather than by the support of a Government directive.

(c) To gain the confidence of its consumers the Corporation could guarantee the quantity of supplies to the customer. In this respect the Corporation has certain advantages which it should fully bring into play. If for some temporary reason the particular colliery from which supplies would normally flow to the consumer, is unable to maintain or develop production, the N.C.D.C. should, even at some temporary loss, make supplies available to the consumer from another of its collieries, thereby gaining the confidence of the consumer as to the continuity of supplies. Correspondingly it would be legitimate to expect from the consumer guaranteed minimum offtake at regular intervals from the N.C.D.C. at the agreed price. These guarantees would enable the N.C.D.C. to organise its production and to arrange despatches on a more regular basis.

(d) Rigid adherence to quality is important. As a public sector undertaking it should lay down standards of quality and rigidly enforce them. A serious note should be taken of any lapses in this respect by any of its officials. At several places, we noted that the Corporation has a mechanical screening plant, which, in fact, should enable it to provide far better satisfaction to the consumer in regard to quality of its coal as compared to many private sector collieries. There is no reason why the Corporation should not even seek to compensate itself with slightly higher prices for the higher standard, which it can and should maintain in regard to low admixture, consistency in sizes etc. Under conditions of decontrol, current methods of grading coal and specifying sizes and admixture may need to be altered. Equally, price differentials as between different grades and as between steam and slack may also have to be altered, in order to suit the production programmes and consumer markets.

(e) The consumer satisfaction in regard to quality being important, the NCDC should also consider making arrangements for a system of independent inspection at the time of loading of coal. In respect of large and important consumers, even at the destination it could arrange for surprise checks to ensure that no supplies are made which are different from the standard specified.

(f) Another important measure which should be taken to gain the confidence of the consumer is to ensure that complaints made by the consumer in regard to quality or grade are quickly attended to. There should be a time-limit within which the complaints are investigated and settled. A procedure should be laid down for this purpose and staff earmarked who should be in touch with both the sales office and producing collieries. Where the complaint is found to be valid, the Corporation should not hesitate to give the necessary recompense. Where it is found to be frivolous, it should firmly reject the complaint. It is by maintaining high standards in regard to quality, regularity of supply and prompt disposal of complaints that the N.C.D.C. should seek to increase its share of the market.

(g) In regard to prices, the basic premise is that for the quality of supplies offered, the price should be competitive. There is no reason why consumers should require, as some public sector consumers do at present, that the price should be related to N.C.D.C.'s cost of production. They should be primarily interested in getting their supplies at prices somewhat lower than the costs they would otherwise incur on supplies from other alternative sources. If such

prices give more than moderate profit to N.C.D.C., there is no reason why it should not make that profit. The N.C.D.C. should also exploit its special position as a large producer. The prices charged should be flexible and should differ with quality. Special inducements should be provided for pavements made within a specific period of the receipt of bills. Reduction and rebate could be provided to large consumers who guarantee minimum offtake at an agreed pre-determined price, such reduction and rebates being applicable to sales in excess of the guaranteed offtake. It could even devise a sliding scale of prices for such large consumers as power-houses. After-sale service should be established to assist these and other consumers with some of their problems in the use of coal. For this purpose the N.C.D.C. should explore the possibility of starting coal utilisation cells and/or fuel efficiency cells, as part of its sales promotion programme.

(h) The N.C.D.C. should not remain content with enjoying its legitimate share in the existing market. As a public sector enterprise it should assume special responsibility for developing expending markets particularly in the rural areas for its products, where necessary with the help of trade.

(i) Considerable discussions have taken place in recent months as to whether or not the N.C.D.C. should employ the services of middle men in marketing its products. In particular, it has been often alleged to be wrong to engage the services of middlemen for supplies made to other public sector enterprises. In actual fact supplies to the Railways and to the Steel Plants are made without the middlemen. It is only in regard to other public sector agencies, principally the power houses, that the sales to these agencies are made through middlemen. We do not wish to take any theoretical view on this subject. We agree that as far as possible, sales to public sector enterprises and in fact even to large private sector enterprises should be made direct and not through the middlemen. However, we see no reason why the N.C.D.C. should not also seek to develop its market fully with the assistance of those marketing agencies which already have a considerable sales organisation around the country. From this point of view and more especially to develop new markets we consider that the N.C.D.C. should explore the possibility of appointing such middlemen as their agents for sales in particular areas. Such middlemen have to be chosen carefully not only on the basis of their financial standing but also on the basis of the organisation that they possess for the promotion of sales and for the expansion of market in particular areas. Their remuneration could be paid on the basis of performance. Their functions and liabilities should be precisely defined and enforced. What has been wrong in the present sales procedure through middlemen is not that they are employed for obtaining business from public sector enterprises, but that their functions and liabilities are not clearly defined, except by what goes in the name of trade practices. Further, timely action has not been taken to recover the bills for supplies made to some of them for the fear that markets for particular qualities of coal would be lost. In both these respects, the position can hardly be regarded as satisfactory.

(j) It is also important that the sales organisation remains in touch with the producing areas. We have noted that there is a tendency at times for the sales offices to blame the producing areas for inadequate attention to quality and for irregular supplies. On the other hand, the producing areas have complained that sales have been inadequate or that adequate and timely

arrangements are not made for the sale of slack or low grade coal and their accumulations of these grades of coal at pit-heads in turn have considerable impact on the flow of production. Sales and production are indeed closely connected activities. It is, therefore, essential that the sale and production agencies should remain in constant mutual touch. Currently coordination is provided only by a monthly or periodical meeting of Area Managers in Ranchi. What is important is that there should be effective and meaningful liaison at the lower levels as well. The suggestions made earlier for instituting an inspection and complaints procedure should provide one opportunity for bringing together these two agencies at the working level. In important areas, it may be even necessary to appoint at the Area level, a whole-time representative of the Sales Department to assist in bringing about the necessary coordination.

(k) Lastly, we have noted that the procedure of billing for sales needs to be speeded up. Currently, bills prepared for all despatches are sent each fortnight to the sales offices and the sales accounts office in Calcutta within five days after the close of the fortnight. For sales made to middlemen, the bills are sent to the sales office, whereas those made without the agency of the middlemen are sent to the sales accounts office. These offices then scrutinise the bills and forward them to the payees. The credit period is counted from the date of actual receipt of the bills by the payees. It has been found that this actual despatch of bills to payees has been inordinately delayed in several cases. We do not see why the bills should not be prepared even daily, and for each consignment, or why they could not be sent direct by the despatching collieries or their Area Accounts Offices, to the consignees direct instead of being routed through Calcutta offices. A system of a separate bill for each consignment has this merit that, should there be any complaint or dispute as to one particular consignment, the customer would not be in a position to delay payments in regard to other consignments and thus derive adventitious benefit. Copies of bills could be sent to Calcutta offices to enable them to watch the recoveries. It has been mentioned to us that one reason for the present procedure is to enable the Calcutta offices to check the bills before they reach the consignees. We do not understand why such an additional check should be necessary. If the sales orders clearly specify the quality and price, the colliery offices or at best Area Accounts Offices should be able to exercise all the checks necessary before the bills are despatched to the consignee. In the present system the consignees including the middlemen, get an unintended advantage of an extended period of credit. The N.C.D.C. as a trading organisation having to borrow its working capital cannot afford to lose time in billing or in the recovery of the bills or to forego interest on overdue bills, as has been done so far. The N.C.D.C. should also ensure (a) that any cases of delay in the despatch of bills to consignees are fully investigated and necessary disciplinary action taken in regard to the delay and (b) that interest is charged on any payments delayed till after the usual credit period.

(2) *Transport*—In regard to transport we would like to mention only two or three matters at this stage.

(i) There are widespread complaints from the colliery offices that the supply of wagons is less than the indent and that the supply is irregular. These are borne out by statements of wagons indented, wagons allotted and wagons

received, as furnished by a number of collieries. The Railway officials with whom we discussed the matter have, however, told us that there is no shortage of wagons. They have produced evidence of certain collieries not having been able to load all the wagons supplied. These being matters of detail, which we have not yet examined, we do not wish to express a definite view. What has struck us, however, is that the existing procedure for allotment of wagons and of actual supplies is somewhat rigid and over-centralised. Some of the procedures and restrictions might have been correct when coal was subject to distribution control and also when there was an overall shortage of wagons. Some simplification in them should be possible, without necessarily reducing the requisite degree of efficiency in the use of rolling stock. We would request the railway agencies to re-examine these procedures.

(ii) Our study has shown that even after the allotment of wagons is made, their arrivals at the collieries are irregular. In theory, wagon allotment is notified to the pilot in time for the supply being made to particular collieries. If the pilot is notified at 3 O'clock and if the wagons as notified are readily available at the Depot station, it should be possible for the wagons to arrive at the colliery not later than mid-day. There are frequent instances, however, where the actual arrival of wagons is much later in the day and our investigations show that often the allotment includes wagons which are not readily available at the Depot station at the specified time. In making the allotment the allotting authorities in fact also allot wagons which are expected to arrive at the Depot station during the next few hours on the day of loading. When these do not come in time the pilot cannot marshal them and take them to the colliery in proper time. We consider that with a little readjustment of the allotment procedure and better supervision of pilot operations, it should be possible for the railways to ensure that there is regularity in the supply of wagons and punctuality in their arrival at the colliery. This is a matter of great importance for the collieries as once they know that the time at which wagons are to be expected, the production and loading could be arranged to fit in with the supply of wagons. The N.C.D.C. would thereby avoid additional expenses of bunkering and of overtime and idle labour which they otherwise have to incur because of the vagaries of supply of wagons. If the N.C.D.C. is able to reduce its costs in this manner, it will be able to offer better competition, by passing a part of its savings to the consumers.

(iii) Besides this it seems necessary that there should be an arrangement for adequate liaison at various levels between the Railways and the N.C.D.C. In some areas this liaison may take the form of special officers appointed to deal with day-to-day problems of the colliery and the Railways. The headquarters office and the Sales Department of N.C.D.C. in Calcutta, moreover, should be in close contact with the offices of the two Railway systems namely the Eastern and the South-eastern Railways which are the predominant carriers of coal. In addition, Area offices should be in close touch with Divisional offices of the Railways so as to obtain better liaison at the operating levels.

(3) *Production Planning*—Sales and transport facilities are the major determinants in the planning of production. These three aspects are closely inter-related. Coal cannot be allowed to be held at pit-heads without risk

of fire due to spontaneous heating and deterioration in quality. Pithead stocks involve double handling which also means extra costs. So production has to be coordinated with despatches and sales. At present, coordination in these activities is achieved at periodical meetings between A.G.Ms. and the headquarters officers. We consider that a systematic approach to planning of production will help to resolve many of the present difficulties.

For this purpose, what is necessary is for each mine, realistic cost data, data regarding potential markets and sale possibilities and data as to its production potential.

The cost data should reflect the actual expenditure incurred on production at each colliery and should be presented in two parts, one relating to direct costs which vary with production, and another overhead and fixed costs. The cost data should also be capable of distinguishing the costs which are within the control of the local managers and those elements over which they have no control. Such a presentation may bring about greater cost consciousness than what obtains at present, amongst the local managers and thereby induce them to take those measures which are within their powers to economise on costs which are within their control. Such measures would include not only better deployment of labour but also economies in consumption of stores and spare parts and obtaining maximum service from its capital plants. It is the duty of the local managers, (A.G.Ms., D.S.O.C. and Colliery Officers) to be constantly on the look-out for affecting economies in the unit cost of production and the costing data should be fully utilised for this purpose.

The N.C.D.C. has a small cell of Industrial Engineers to study matters relating to productivity and thereby to suggest economies in unit cost of production. There should be a regular cadre of Engineers fully trained in industrial engineering whose services should be available to each of the Area Offices and these should be fully and freely utilised to bring about higher productivity and lower economic costs.

One defect in the present cost system is that there is no reconciliation between the financial accounts and the costs as shown. This lacuna reduces the value of cost data as an instrument for control of costs. It is understood that the main difficulty in this respect is that even store accounts are not up-to-date and frequently correct values are not shown in respect of stores utilised in production. It is necessary that these defects should be removed as early as possible.

In planning production full use should be made of cost data. Profits of N.C.D.C. are the aggregate of the profits made from the production in each colliery. Therefore, larger sales and larger production from those collieries which give a larger margin between the selling price and the cost of production should improve the financial position of the N.C.D.C. The sales efforts and production efforts should, therefore, be concentrated on those collieries which give such larger margins. Where margins are smaller and yet the prices realisable are sufficient to meet both the direct and the variable costs, again attempts should be to maximise sales and production so as to improve overall profitability. In a competitive market prices may sometimes

have to be fixed in a way that they do not cover all the costs. Nevertheless, it is important to keep the production going. So long as the prices are in excess of the variable costs, the resulting margin should, with greater sales, reduce the losses incurred in respect of fixed cost. Here again is a further category of cases where efforts should be made to increase sales and production. If there are any collieries where the freight disadvantage to the N.C.D.C. as compared to supplies from other sources is very large or where even the variable costs cannot be covered in the realisable price, the N.C.D.C. may even consider suspending production from such collieries, and keeping them on care and maintenance basis or even abandoning them. Continued production from such collieries would mean larger losses and these would greatly affect the overall trading position of the N.C.D.C.

These are some of the major points which need to be taken into account in planning and production from each colliery and each area. Once it is decided to step up production from particular collieries and the sales are in sight, all reasonable assistance by way of stores and spare parts, should become available to them to ensure maximum production. It should be the effort of all concerned to meet the needs of these collieries promptly and adequately. The work of the various connected officers should be judged on the basis of the extent to which they facilitate the achievement of the production plan.

If adequate informative data is collected at the headquarters of the N.C.D.C., it should be possible to draw up a plan of production each year which would give the optimum trading position. There should then be periodic reviews. The plans should be finalised after discussions with officers in the field. The areas and the collieries and the sales office should be required to make maximum effort to adhere to them. The performance of individual offices could be judged by means of periodic reviews and progress reports.

(4) *Store and Purchase*—One important point pointedly brought to our notice is the inadequate and irregular supply of stores and spare parts of machinery essential for maintenance of production. At all the local offices which we have visited complaints were made of the delays in the supply of spare parts, the dilatoriness of central purchase procedure, inadequacy of stores and spare parts and the consequent break down of earthmoving equipment as well as underground mechanical equipment. It would appear that while the N.C.D.C. undertook a large programme of mechanised mining, the ancillary services which could make such mechanised mining give the results expected, do not seem to have received proper attention. A large number of makes and types of machines purchased from different countries—and often even from the same country—has added to the difficulties of their maintenance and of provisioning of spare parts. In many instances we saw a large number of dumpers and other earthmoving machinery out of commission. Obviously the entire procedure of indenting, procurement and supplies of store and spares requires to be reviewed and streamlined. In this respect we recommend that the post of Controller of Stores and Controller of Purchase be combined. It should be the responsibility of the Controller of Stores and Purchase to ensure adequate stocks at its regional stores. It should

also be his responsibility to see that collieries are not overstocking nor are they deficient in essential stores. A system of timely indenting should be introduced and the purchase procedure simplified with a view to getting maximum supplies within minimum time. A large number of rates contract which have been made should help in ensuring quicker supplies. However, some collieries have complained that relying on single rate contract supplier has sometimes led to difficulties. It should be possible to arrange rate contracts with more than one supplier to the maximum extent possible in order to obviate these difficulties. Shortage of foreign exchange has been one of the reasons for the inadequate supply of spare parts. There are proposals for indigenous manufacture of a large number of spare parts. There is, however, no systematic arrangement for this purpose. The two Central Workshops should be brought to higher level of production especially of those stores and spare parts which are constantly in demand by collieries. These possibilities do not seem to have received the attention they deserve. The N.C.D.C. should draw up a systematic programme for the fuller utilisation of this manufacturing and repairing capacity which it has at its command. We hope to deal with these matters in greater detail in our subsequent report. Here we refer to the problem as one requiring taking of urgent measures which would ensure smooth flow of supplies of plant, equipment, stores and spare parts, specially to those collieries, where, under the production plan, production is to be stepped up.

(5) *Accounting*—Reference has already been made about the inadequacies of store accounts. In all the areas that we visited store valuation accounts were not uptodate. This lacuna has also been brought to our notice by the commercial auditors of the Corporation. It is the delay in the accounts of store valuations that comes in the way of there being a monthly reconciliation of cost accounts with financial accounts. This lacuna is also believed to be responsible for large quantities of stores exhibited in the annual Balance Sheet, as "stores in transit". Without proper store accounts, it has not been possible to present monthly or periodical financial statements to the management. It is essential that definite steps are taken without delay to improve this state of affairs. Store accounts are essential if the costs sheets are to present a realistic picture. Owing to the long delay that has taken place, it may be worthwhile now to isolate past store transactions and seek to reconcile them separately by instituting arrear sections. The Accounts Offices should be suitably strengthened if necessary, by readjustment of staff between different departments, so that they bring the store accounts uptodate as from some pre-determined date. If this is done, it should be possible to provide not only a monthly reconciliation of the costs and the financial accounts but also to present a monthly balance sheet for each area and each accounting unit to the management. Currently accounts are only reconciled for the whole financial year i.e., for a period of 12 months and the accounts data is available to the management long after the conclusion of the financial year. If the accounts are to play an effective part as an aid to sound management, the data being available only for 12 months and then again long after the events are not very useful for this purpose.

Another recommendation that the Committee would like to make is that each area accounts office should be a complete accounting unit by itself. At present the Area Accounts Office operates on an imprest account. As the transactions are large, the use of imprest accounts system for the accounting does not appear to be appropriate. We have consulted the commercial auditors of the Corporation and also the statutory audit authorities. We see no reason why the area accounts office should not be relied upon to produce complete accounts for the area, monthly, quarterly and annually. The coordination at the headquarters could then be of all these complete accounts.

One other deficiency relating to the accounts organisation which should be quickly attended to, is the inadequacy of the internal audit system. The internal audit section itself is too small for a large organisation like N.C.D.C. The staff requires to be strengthened both in number and in quality. The tasks of internal audit should not be limited, as hitherto, to verification of payments with sanctions and to the formal or regulatory auditing to watch that the rules and regulations are being followed in sanctioning each payment. It should be given specific problems for study. It should also be able to locate any waste or loophole which need to be attended to. In recent months such work has been undertaken in certain fields and the scrutiny of the Internal Audit staff has pointed to several important areas for management action, for economies and for toning up the administration. With decentralisation of accounts it would be all the more necessary to employ internal auditors for these higher audit functions. While the accounts are decentralised and become parts of the Area General Managers' offices, the internal audit should be independent of the area offices and should be directly responsible to management at the headquarters.

(6) *Problems of Administration and Organisation*—It is not proposed to deal with these problems in all their aspects in this Report. The major and most urgent problem in our view is to restructure the top management, to strengthen it, providing for continuity of effective control, supervision, and decision making process at the headquarters level. Our comments on this problem and our recommendations in this behalf are contained in subsequent Chapters of this report. Here, we propose to record certain matters to which, in our view, the management should devote its early attention. In many areas we came across a number of competent personnel at the middle and the intermediate levels of management. Many of them complain of too much paper work and rigidity of procedure which, in their views, could be avoided. The immediate tasks, however, in this respect are to improve the state of discipline and to bring about cohesion between the different offices of the Corporation. We have come across cases in which orders issued by the Board of Directors have not been implemented nor was adequate action taken to get them changed. We have also come across cases in which orders issued by the headquarters at Ranchi have not been given effect to. There is tendency more particularly at the headquarters office, to take a departmental view instead of considering each matter from overall point of view. This trend seems to have been promoted by the unfortunate system which came into vogue in early years of the Corporation when, for each major activity, there was a separate departmental head responsible only to the Managing Director, and having separate officers of his own in the field, not subject to the

discipline of the local decision — making authority. This system has also resulted in overstaffing. What is worse is that it has promoted narrow departmental attitudes. A great deal of effort is now spent in trying to justify particular lines of approach or arguments instead of reaching, by discussions and consultations, practical working solutions to the problems in hand. If the Corporation's working is to be placed on a sound footing, it is necessary to bring about a decisive change in this attitude and to take concrete and conscious steps to promote team work at various levels. Equally, the administrative procedures should provide for incentives for good performance and quick and speedy penalty in respect of lapses. All these changes and improvements could be brought about only by strengthening the top management and by defining duties and functions of each official. It has been brought to our notice that there have been no clear definition of functions of each officer. Much is left to be inferred from the position he holds and the direction he gets from officials at higher levels.

(7) *General*—The various deficiencies and lacunae that we have referred to above are not exhaustive. But these are matters which, in our view, require immediate attention of the top management and in some cases of the Central Government. Some of the weaknesses referred to above crept into the organisation because of lack of leadership and lack of continuity in the appointments of the various top posts. The task asked of us is to locate deficiencies and to suggest remedial action. By pointedly specifying these weaknesses, we do not wish to imply that everything is wrong with the N.C.D.C. That would not be a correct and a balanced view. The Corporation has certainly built a large production potential for the large market for coal as was expected in the Second and Third Plans. It has also become, by now, a price stabiliser for one of the elementary raw materials for industry. It has taken up projects of development which, in years to come and with proper management, will make significant contribution to meet the national needs. It has brought together a large number of competent technical personnel at the middle level who, with necessary direction and guidance, have the capacities to discharge their task loyally and competently. Some of them have acquired experience and training in methods and techniques which have not been commonly practised in this country. These add to the assets of the country for future development. These and many others are important gains which should be preserved. The suggestions made in this report will, in our view, go a long way in achieving these objectives.

IV—STRUCTURE OF MANAGEMENT—BOARD OF DIRECTORS

4.1. The National Coal Development Corporation Ltd. was incorporated under the Indian Companies Act. The Corporation having been given this company form of management, all its functions and powers vest in the Board of Directors. Being the wholly owned concern of the Government of India, its entire capital investment is met from the public revenue. The Directors themselves are nominated by the Government of India. For the first two years the Chairman of the Board of Directors was the Minister in charge of the Ministry of Production and later the Secretary of the Ministry. This continued till 7-9-1959 when the N.C.D.C. had a non-official Chairman. From the list of the Directors who were nominated, it would appear that with just one or two exceptions, they were Government officers from Ministries whose assistance was needed for the development of public sector production of coal. Thus the first Board of Directors had representatives of the Ministry of Iron & Steel, Ministry of Finance, Ministry of Railways and one non-official Director. While many changes had been made subsequently in the composition of the Board, it continued, in the main, to comprise of senior officers who represented certain Government departments and certain Government institutions.

4.2. This system of nominating a Board comprised mainly of officials of interested Ministries and organisations has two significant effects. Firstly, when the particular officer who represents an organisation is transferred, his place is taken by his successor. In certain departments transfers are frequent and so this system results in a frequent change in personnel and a break in continuity. Secondly, the system also results in many of the Directors taking only a limited interest in the work of the Corporation. A number of Directors who have met us and discussed with us the way in which the Board of Directors of the Corporation has functioned have quite plainly told us that they were primarily concerned with the particular aspect of Corporations' work which impinged on the working of their own Ministries and organisations. On matters which were not directly connected with their particular interests, the Directors frequently displayed an uncritical and passive attitude. Moreover, if proposals made by the Managing Director had implicit or explicit support from the Ministry, the Board of Directors could not play an effective part in considering them. It may not be an exaggeration to say that in this way the Board of Directors of the N.C.D.C. has been functioning at the very best, like an inter-departmental committee. Many of the officials nominated to the Board are far too pre-occupied with their work and few of them, if any, have the time to devote themselves adequately to the affairs of the Corporation. It is significant that out of as many as 93 meetings of the Board of Directors held during 1956-57 to 1966-67 (inclusive) as many as 61 were held in New Delhi and 7 in Calcutta, presumably to suit the convenience of several Directors. The numbers held in Ranohi and certain colliery areas were 23. Many Directors, past and present, have told us that frequently they were required to deal with a voluminous mass of papers without adequate notice in a short period of a few hours, and hence they have

had no time to go into matters of detail. We have glanced through the proceedings of some of the meetings of the Board and its agenda papers, which lend confirmation to these views.

4.3. The effective powers of management rested with the Managing Director, to whom all the powers of the Board have been delegated, with certain exceptions. Powers retained by the Board of Directors are appended as Annexure III. We do not object to these delegations as they facilitate day-to-day management. In fact, later we suggest that the present delegations should continue. But the delegation of powers does not mean virtual abdication of authority. The Managing Director has the right to receive guidance in the working of the Corporation from the Board of Directors and the Board of Directors, as the authority responsible for the sound working of the Corporation, has the right to keep itself fully informed, to intervene, where such intervention is necessary and generally to exercise its authority.

4.4. As stated earlier, even in these matters which required to be approved by the Board, in many cases, the Board allowed itself to be influenced in its judgement by the views of the Managing Director, especially when these also found the support of the Ministry of Steel, Mines and Metals or its representative. If the Board had been vigilant and seriously concerned, as it should be, with the commercial and production aspect of the Corporation's work, it would not have allowed the Corporation to rush into what turned out to be an imprudent decision to secure maximum production in January—March 1961, irrespective of transport availability, merely to demonstrate its productive capacity. We find that such important matters, as large losses involved by fires or other causes, are not brought to the Board of Directors for the write-off of losses or for other action. There seems to be no regular procedure too for bringing to the Board a record of action taken in implementation of its earlier decisions. In the circumstances, it is also not surprising that officers and other employees, including trade unions, not satisfied with the decisions of the Corporation, have frequently sought to bring pressure to bear on it through the Government and the Ministry. Instances have also come to notice when the Ministry regarded the Corporation as one of its subordinate offices rather than an autonomous Company. Our conclusion is that while the formal and legal powers of business of the Corporation vested in its Board, the effective power was in the Ministry of Mines and Metals and the Managing Director, even in such day-to-day matters on which the Corporation should have relative freedom of action.

4.5. We consider that these arrangements should be changed and that the balance of power should be restored as between the Board, Managing Director and the Government. For this purpose, it is necessary to define in as precise terms as possible, matters which need to be looked into and controlled from Delhi and the matters in which the Board should have an effective and final voice. It would be necessary to define the responsibilities attaching to the Members of the Board and to reconsider its composition so that it could function more effectively. Further, it would be necessary to consider and evolve procedures which would enable the Government and the Board of Directors to exercise such control and supervision on the work of the Corporation as is required in fulfilment of their respective obligations, leaving a large part of the day-to-day work to the Managing Director and his team of top officials.

V—RELATIONSHIP BETWEEN THE CORPORATION AND THE CENTRAL GOVERNMENT

5.1. We have, thus, arrived at the conclusion that the Board of Directors of the Corporation, although formally and legally empowered to exercise all the powers of management, administration and policy decisions, has in fact not functioned effectively. General scrutiny of the minutes and agenda papers of the Board has indicated that many of the matters coming before it have been dealt with in a formal way. From the very beginning the Board was furnished with a quarterly report by the Financial Controller. It is interesting to find that for some time before 1967, this report was discontinued. If the Board wished to keep a watchful eye on the working of the Corporation, it would not only have insisted on furnishing of this and other reports but also on certain progress data regarding projects, cash position, accounts etc. which it should ordinarily need in order to carry out its functions. The reasons why the Board has not been an effective instrument in carrying out its functions have already been mentioned. Attention has already been drawn to the fact that the officials, the employees, the suppliers of stores and equipment and purchasers of coal have, when not satisfied with the decisions of the Managing Director, often sought to obtain the intervention of the Ministry and the Central Government. For the proper functioning of the Corporation it is necessary that the effective authority should vest in a properly constituted Board of Directors which is formally vested with these powers. The present picture of weak Board of Directors with powers delegated to the Managing Director who receives guidance more from the Ministry than from the Board should be altered.

5.2. The Committee has read with interest the suggestions made by the Administrative Reforms Commission for the establishment, by statute, of sector corporations for each industry. The establishment of such sector corporations could inter alia undertake functions of co-ordination and detailed control on each industrial unit—functions which at present devolve on the Ministries. In regard to the N.C.D.C., the Commission has recommended that there should be a sector Corporation for the N.C.D.C. and the Neyveli Lignite Corporation. We feel that each of these two concerns having capital assets of well over Rs. 150 crores, might prove to be too large to be brought under one Sector Corporation. Moreover, while the functions of the N.C.D.C. comprise mining of coal and the operation of coal washeries, the N.L.C. deals with not only the mining of lignite, but also its use for power generation and running of a large fertiliser plant. The dissimilarity of functions of the two Corporations casts doubt as to the suitability of their being brought under one Sector Corporation.

5.3. One obvious advantage of statutory sector Corporation is that the functions and responsibilities of the Ministries and the corporations respectively would then come to be defined by Statute. There is less chance then of dilution of the autonomy of the corporations. However, the establishment of such corporations involves a time-consuming process of legislation. In our

view, it should be possible to gain the objective of ensuring autonomous functioning of industrial units by finding a solution within the present frame-work of the establishment of public sector companies under the Indian Companies Act.

5.4. The precise method which we would suggest is that there should be a clear statement made of the main areas of responsibility of the Central Government and of the Board of Directors of the Corporation. The statement should take into account and reaffirm the formal position as indicated in the Articles of Association of the Corporation. The Articles of Association for the establishment of the company indicates quite clearly the intention that the Board of Directors should function in an autonomous manner. However, in view of the procedures that have developed in respect of N.C.D.C. (and possibly some other corporations as well), it would be best to restate the position more precisely and to carry out the intentions of the Articles of Association not only in spirit and practice but also in letter.

5.5. According to the Articles of Association, it is the responsibility of the Central Government to appoint the Board of Directors, the Managing Director and the Financial Controller. The prior sanction of the Central Government is also needed for the creation of posts and the appointments thereto on salaries whose maximum level exceeds Rs. 2,250/- p.m. Thirdly, the approval of the Central Government is needed to incur capital expenditure in excess of Rs. 40 lakhs. All other powers are vested in the Board of Directors.

5.6. In addition, Central Government as the owner of the Corporation has the right to ask for and to receive a performance budget, say once every year and quarterly reports giving a full and complete picture of progress. In respect of supervision of capital works and of progress of new projects, the Government should involve itself more closely than in respect of operation of completed projects and of other management matters.

5.7. Besides these powers, Central Government is frequently approached to provide such assistance as the Corporation needs for co-ordination with the working of other Government agencies. In this respect, the Committee is of the opinion that the Central Government should increasingly leave it to the N.C.D.C. (as also other Government Corporations) to establish direct contacts with the Government agencies, other than Ministries of Government. There is no reason why matters arising between Hindustan Steel and N.C.D.C. need to be considered at the Governmental level. Even in respect of such matters as supply of coal to railways, public sector steel plants, Electricity Boards of the State Governments and Central Electricity Units if any, there is no reason why the N.C.D.C. should not enter into direct negotiations with them for supplies as well as for settlement of prices. The intervention of the Ministry should become necessary only in some very extraordinary circumstances.

5.8. Another important area where co-ordinating work by the Ministry is essential is in the formulation of the future plans of development. Here it is the question not only of coordination, but of preparing proposals for fresh capital investments. While the N.C.D.C. should determine both its potential production as well as make its own assessment of the market for its product, the Ministry would be in a better position to indicate to the Corporation such

further plans of development as may be undertaken by or under the sponsorship of other departments or Ministries of Central or State Governments which may need supplies of coal from the National Coal Development Corporation. In the formulation of the plans, therefore, the Central Government has to be closely involved in order to secure balanced growth in different sectors of development. Furthermore, in so far as financial resources have to be found for measures of development and such resources have to be provided by Government, it is obviously the Government that would be the deciding authority. We, therefore, consider that all plans for development of new mines and washeries as well as other capital projects which are estimated to cost more than Rs. 10 lakhs should, as at present, require the scrutiny and sanction of the Central Government.

5.9. Next we may consider the matter of pricing policy. In a corresponding case of the National Coal Board in the United Kingdom, the Statute empowers the Government to approve the method of pricing. In the case of N.C.D.C., it should not be necessary for the Central Government or the Ministry of Steel, Mines and Metals to retain for itself the power for determining prices of coal produced by N.C.D.C. The position since the decontrol is such that prices may have to vary from product to product, from time to time and even from colliery to colliery in order to ensure the maximum production at minimum cost. The flexibility of operation that is needed to secure this object requires that the Corporation and its management should have the necessary powers to determine selling prices for its product. To ensure requisite flexibility, the Board of Directors may be well advised to lay down broad criteria, leaving it to the Managing Director to determine prices for individual sales orders. It would be necessary, however, as a working rule that important sales made by or under the authority of the Managing Director are reported to the next subsequent meeting of the Board.

5.10. The question then arises as to whether the Central Government should lay down to the Corporation specific economic criteria which the Corporation should follow in its working. In our view such criteria, in the present context, could be defined only broadly. One obvious direction in which the N.C.D.C. should be required to organise its work is to ensure maximum production at minimum possible cost. Being a public sector production unit, it should be expected to follow fair trading practices and necessary ethical standards in its business of production and trade. The Corporation should make profits and obtain a fair return on the capital which has been invested in its plant, equipment and other development works. These profits, however, should emerge primarily as a result of economies in production. The objective should be to set prices which would be fair to the consumers besides being profitable to the N.C.D.C. In the United Kingdom, the National Coal Board is required by the policy directive of Government to price its products and to organise its working in a way which ensures that taking good years with bad, Board would neither make profit nor loss. Such a provision was probably necessary in the United Kingdom as the National Coal Board has a monopoly of production and supply of coal. The position in India is different. Only a portion of the coal market is at the disposal of the N.C.D.C. As required by the Industrial Policy Resolution, the private industry will continue to operate

and will be given requisite assistance for its reasonable growth. Prices are, therefore, determined by competition than by a formula such as the one set for the National Coal Board in the United Kingdom. In actual fact it would appear that even in the United Kingdom, the National Coal Board has to reckon with competition from Oil and Natural gas, with the result that with the encroachment of these competing fuels and a progressive reduction in the coal production, the National Coal Board has found it increasingly difficult to avoid losses as required by the price policy set for it by its Government. We consider that it may not be necessary to lay down any specific economic criteria; except to state explicitly, what is implicit in the present situation, that the N.C.D.C. should seek to maximise the return on its investments, following at the same time fair trading standards and setting out for itself sound commercial management.

5.11. Next, it may be considered if any other general directions are necessary to specify certain broad standards for the working and practices of the Corporation. It has been mentioned that as a public sector corporation, the NCDC should be required to maintain best trading standards. It should not resort to practices which are not in accordance with the best business ethics. Similarly, in the matter of labour relations, the Corporation has necessarily to adopt a more progressive outlook than the private sector. In these and similar other matters, the Ministry or the Central Govt. may wish to lay down a specific code of conduct for being followed by the Corporation in its actual working. The problem is not peculiar to the working of N.C.D.C. and hence may have to be considered for all public sector units.

5.12. However, having laid down these general criteria, the management of the corporation should be left entirely to the Board of Directors subject only to the specific powers reserved for the decision of the Central Government.

5.13. In particular, all matters relating to what are known as revenue collieries should be finally disposed of by the Board of Directors and under its supervision and guidance by the Managing Director and by the top management. It should not be necessary either for the Board of Directors or for the Managing Director to seek prior concurrence or approval of the Central Government in the management of these collieries. As the Board of Directors would have a representative from the Ministry, he would necessarily be in a position to keep the Ministry and through it, the Central Government, informed of the progress of working of these collieries. Moreover, as stated earlier, Central Government should receive before the beginning of the financial year of the Corporation in the form of a performance budget, a statement of its production plan, what it expects to produce in each mine and in each region, the sales that it seeks to make, the expected financial return and any other information that may be relevant to the planning of production. The Central Government could also expect to receive progress reports from time to time including financial data and such other reports as may be needed to keep it informed of the progress.

5.14. We are aware that the principle of public accountability requires the Ministry to keep a close watch on the operation of a Government-owned company. It may be necessary for the Government to intervene in matters,

involving public interest. Where the Board of Directors finds that the commercial and financial interests of the Company would be best served by a particular course of action, the Central Government may wish that, in the public interest, a different course of action be followed. We have suggested above ways in which the Central Government, through its own nominees on the Board and by obtaining periodic progress reports, makes itself continuously familiar with the working of the N.C.D.C. These working procedures should enable Central Government to intervene when intervention is required. We believe that in respect of matters other than the development of capital programmes, such intervention would not need to be frequent. In any case, we consider that the intervention should take the form of specific directive and that the concomitant financial responsibility be assumed by the Government and not allowed to be reflected in N.C.D.C.'s balance sheet. This latter point is important, as the assumption of financial responsibility by the Central Government will ensure that the directive is subject to periodic reviews and modification as required. Moreover, it will also ensure that the balance sheet of the N.C.D.C. is not saddled with the financial impact of its non-commercial activities. It may be stated that in September, 1960 Central Government issued a directive to N.C.D.C. to continue the working of Giridih collieries, but the losses incurred on these collieries were merged in the financial results of the Corporation, instead of being given as a grant from Central Government. The system has resulted in exhibiting in N.C.D.C.'s balance sheets profits lower than what they would have been but for the directive. In so far as the accumulation of surplus funds with N.C.D.C. was less because of this factor, the Corporation has moreover, been called on to bear additional interest charges as a consequence.

5.15. In regard to the development projects, the Central Government should be closely concerned. Before a project is taken up in future, the Government should require the N.C.D.C. to initiate necessary surveys and studies, prepare project reports which would be sufficient to indicate the justification for undertaking the project, its expected financial results and its contribution to the national economic growth. We have seen a number of project reports for the Second Plan and Third Plan projects. In all these project reports, the N.C.D.C. assumed that there would be adequate market for coal produced from these projects. On enquiry we understand that the N.C.D.C. made no market survey at all and it was guided largely by the indications given to it by the Central Government and the Planning Commission. These project reports themselves are sketchy. For project after project, the geological data on which the projects were drawn up was in course of actual construction, found to be inadequate. Plant and equipment was purchased not directly related to the project taken in hand but on a bulk order of the equipment normally utilised either for opencast mines or for underground development. Except in the case of projects planned with foreign collaboration—Russian or Polish—the project reports gave no working details as to the way in which the mine was to be developed. As a result, several changes had to be made in the details of the projects with consequent delays and increases in costs. It is not therefore surprising that, almost in all cases, the project estimates of capital costs were exceeded. On enquiry we were informed that these defects in the project reports and the inadequate attention given to matters of detail was due to the considerable urgency with which the N.C.D.C. was required to step up its production capacity

in order to meet the rising demand for coal. It must be stated that neither did the Central Government insist on such detailed planning as required for timely and economic execution. The projects as prepared were sanctioned and the N.C.D.C. was required to ensure their expeditious execution. The past experience in respect of many of these projects should be sufficient to realise that such short-cuts in development are frequently self-defeating. Another criterion which influenced the N.C.D.C. in its selection of projects was the insistence from the Central Government that it should take up development in outlying fields away from Bengal/Bihar area with a view to easing the transport situation. In many such places, communications had to be newly developed, new townships set up for its workers and staff some of whom had to be brought from other places and considerable infra-structure provided before the mines could be brought into production. As events turned out, the expected increase in demand for coal from these collieries has not materialised; the transport situation is less difficult than what has been envisaged; many of the enterprises which were expected to come up and absorb production of the N.C.D.C. have either been deferred, abandoned or delayed and the industrial recession specially since 1965 has aggravated these difficulties.

5.16. Whatever has been the past record, it should be possible in future to ensure that projects are planned in a more business like and realistic manner and on the basis of fuller data. Latest techniques in project and construction managements should be increasingly employed. In the present context of demand, the N.C.D.C. need not undertake any new project during the next few years except to cater to the needs of a specific consumer. A new power house of a significant size takes about 3-4 years to be completed from the time it is planned. Any plan for a new power house would have to take into account supplies of fuel. If supplies from existing production are not adequate, it may be necessary for the N.C.D.C. to undertake development of a new project to provide a more suitable and economic source of supply. The period taken to plan and establish a new power house should ordinarily be sufficient for the N.C.D.C. to plan and establish a new non-coking coal-mine. There could thus be a co-ordinated development of both power house and the coal supplies needed for it. A steel plant under present conditions takes about 8-9 years to be completed from the time it is planned. Assuming new sources of supply of coking coal are needed for the steel plant, it should not be difficult for the N.C.D.C. to take up planning of such production at about the same time that the new steel plant is planned and to so arrange its construction and development phase as to be well in time for the supply of coking coal to the steel plant. Similar other instances can be thought of. The point that the Committee wish to make is that there could be and should be far greater coordination in the development of N.C.D.C.'s new projects and of the projects which are expected to be the natural markets for the coal produced from those projects. In sanctioning new projects, the Central Government should ensure such co-ordinated programmes. Further, the N.C.D.C. should also be required to follow the best techniques now known for planning and undertaking development of the projects. The development of mine with the foreign collaborations have shown the way in which detailed planning should precede actual development work. The Corporation should be required to follow similar practices. The time taken in the preparation of such working details may at time be found to involve some delays in starting

the project. However, if the geological and other data has been carefully prepared, preparation of such working plans should enable the Corporation to reduce the time taken on its construction schedule and also to economise in cost. We also suggest that in respect of new projects, there should be prior consultation with the Mines Safety Department and with the Coal Board, so that precise methods of mining are drawn up well before the projects are undertaken. Currently, we have come across cases where mine development was planned without such consultations and changes had then to be made in the methods of mining, as required by the Mines Safety Department, with consequent increase in capital costs and costs of production.

5-17. Before concluding this part of the Report it would seem appropriate to refer to two other matters of detail.

We have suggested that in all matters relating to production, management, sales, etc., in respect of all the revenue collieries, the effective decision-making power should vest in the Board of Directors and under its delegation with the Managing Director. We have also suggested that for development projects, the Central Government should be more closely involved. It is, therefore, of some importance to lay down a procedure for determining as to when a development project should be regarded as having reached the stage when it should be brought on the revenue account. We have seen different views expressed on this matter. Obviously, no hard and fast formula can be laid down in this respect. Each of the development projects presents certain features of its own which need to be taken into account in reaching this decision. The minimum condition necessary to bring a development project on to the revenue account is that (1) it is in continuous production and that (2) it has the necessary facilities for loading and despatch of coal. Beyond this, it is more a matter of informed judgement. If a project is not put on the revenue account merely because it is incurring losses, the result would be over-capitalisation of the project, in so far as these losses would then be included in the capital cost of the project. On the other hand, if the revenue account shows a profit, the cost of plant and machinery and development cost would tend to be under-assessed by reason of the capital cost being diminished by the extent of profits. Neither situation would seem to be in accordance with the best accounting practices or in the interest of the future working of the project. The best course would be that at the time of the preparation of the project itself, the planning authorities should indicate fairly clearly as to the stage at which the project should be brought on to the revenue account. The situation thereafter could be reviewed by a group of technical and finance officials at the Headquarters in consultation with the Area General Manager and the Project Officials. The group should watch the progress of the project and advise as to the date from which the project should be brought on to the revenue account. The Corporation's decision in this matter could also be subject to the approval of the Government of India. As we have suggested that in important matters relating to the development projects, the final decision should rest with the Government of India, it would seem to be only appropriate that this decision is also made by Central Government.

5-18. We have noted that the N.C.D.C. does not maintain a depreciation fund. The annual balance-sheet and the profit and loss account exhibit the total depreciation on plant and machinery and other capital assets in use, that is

charged to the profit and loss account. However, no separate fund is maintained. In its annual capital budget which is placed before the Central Government for approval, depreciation, accruing on plant and equipment and capital assets is shown as resources available for further development. The Central Government has been providing plan funds to the extent of the total capital budget less the amount of depreciation and other internal resources which the Corporation can find. The expenditure on major maintenance and replacement of plant and machinery, normally chargeable to depreciation fund, comes to be regarded as part of this annual budget. Earlier, we have recommended that all matters relating to the collieries on revenue account should be determined finally by the Corporation. The Articles of Association also empower the Board of Directors to sanction capital expenditure not exceeding Rs. 40 lakhs for any project; the Board would be in a better position to exercise this power in respect of major maintenance and replacement if a separate fund is maintained and the entire depreciation, as it accrues, is not merged as at present with genuine internal surpluses available for expansion and further development.

5-19. A further point arises in respect of the maintenance of separate depreciation fund. Normally commercial concerns utilise their surplus resources in the depreciation fund to finance their working capital needs. In this way the enterprise is not saddled with interest charges on its entire working capital needs. The accounting procedure followed by the N.C.D.C. transfers the entire depreciation fund resources for use on capital development. For its working capital it has been borrowing from the State Bank of India in recent years paying an interest of $7\frac{1}{2}$ to $8\frac{1}{2}$ per cent annually. If the capital funds required for expansion and development were provided exclusively by the Central Government, it would need to pay interest only on half of the amount, because the funds subscribed by the Government towards capital development are partly equity and partly loan in equal proportions. Under the circumstances, it would be in the interest of the Corporation and in accordance with best business practice, if Central Government were to meet the cash requirements for the entire capital development schemes, leaving it to the N.C.D.C. to utilise its internal resources either for the purpose of working capital, replacement needs or, if any surplus is still available, for investments in Central Government's securities.

VI—THE BOARD OF DIRECTORS : SUGGESTED COMPOSITION

6.1. Besides laying down the specific areas of responsibilities and functions as between the Central Government and the Board of Directors, it is also necessary to see that the Board of Directors is so constituted that it can competently and effectively discharge these responsibilities. As we have mentioned before, the Board of Directors of the N.C.D.C., composed largely as it is, of representatives of Ministries or other public sector agencies, works more like an inter-departmental committee than as a body responsible for adequate and effective functioning of the Corporation in all its aspects. It has also been stated before that one result of constituting Board of Directors in this manner is the frequency with which the composition is changed, when incumbents of particular posts in the Ministries or the public sector units concerned are changed. For its effective functioning, it is essential that not only should the Board of Directors be constituted differently but that there should be adequate continuity in its composition. In fact, the importance of continuity not only amongst Directors but also amongst the top management posts cannot be over-emphasized. Many of the present difficulties faced by the N.C.D.C., the tendency amongst various departments of Corporation to work in a somewhat un-coordinated manner, certain inadequacies in the matter of discipline and implementation of directions, can well be attributed to this lack of continuity amongst the Board of Directors and in the top management.

6.2 The Committee has given very considerable thought as to the composition of the Board of Directors. It considers that on Board of Directors there should be 4-whole-time Directors (including the Managing Director). The Chairman may be whole-time or part-time but even when a part-time Chairman is appointed, care should be taken to see that he is in a position to devote a great deal of his time and interest to the work of the Corporation. Even a part-time Chairman should be expected to make adequate time available for such guidance which the Managing Director may seek from him. Besides, it should be his specific charge to maintain good public relations and to maintain high level liaison with the State and Central Governments and important leaders of public opinion. There is an increasing trend to criticise public sector undertakings. While well-informed criticism should be welcomed and acted upon, instances are not unknown of such criticism coming from interested sources.

It is important, therefore, that the public sector corporations have effective arrangements for public relations. The Chairman of the Corporation, properly selected, should be able to supply the requisite need. If necessary the part-time Chairman may be given a suitable retainer for his services.

6.3. It is needless to add that care has to be taken to see that the Chairman and the Managing Director have the requisite qualities to get on with each other and that both have the necessary qualities to provide the leadership

needed to the Board of Directors and to the management of the Corporation respectively. Other whole-time Directors should be appointed in consultation with the Chairman and the Managing Director. One of them would be required to take charge of matters of finance, accounts etc.; another should take charge of all technical matters, whether of production or of planning, geological surveys, maintenance of equipment and plant etc. There might be a third whole-time Director to deal with the administrative matters. For the time being, we would not suggest a separate Board Director for sales although development of sales is a major and immediate task before the Corporation. We consider that for some time to come, Managing Director should personally be the Board Director responsible for sales. In this work he would have the assistance of the Sales Manager and the two should be together tackling the various matters relating to it as referred to earlier.

6.4. While these whole-time Directors would thus have some specific charge for each of them, it is essential to ensure that along with the Managing Director they work as a team and not as separate departmental heads. This should be ensured firstly, by proper selection, secondly, by ensuring that the selections are made in consultation with the Chairman and the Managing Director and thirdly, by involving them in joint responsibility with the Managing Director in various decisions which the Corporation makes. In making decisions on their own or on behalf of the Managing Director, these functional Directors should be required to take an overall view and not a departmental view. Finally, we have suggested elsewhere that in matters within the delegated powers of the Managing Director, he would have the power to over-rule the recommendations of any or all the other whole-time Directors and the right to review and alter any decisions made by them. It is expected, of course, that normally he would not need to exercise such powers and the decisions are reached by discussions and consultation rather than by the use of overriding powers. A good team would seldom need to invoke such residual measures for decision-making.

6.5. We have emphasized the need for such whole-time Directors as we consider that the provision of such Directors would strengthen the organisation from many points of view. It would provide for a continuity in decision-making in case of any sudden change in the incumbency of anyone of the three or four whole-time Directors. It would also provide a suitable avenue for rising to the top posts to the officers of various cadres of the N.C.D.C. We believe that while for sometime to come the N.C.D.C. and the Central Government may have to seek services of officers from outside the Corporation for appointment to these posts, we look forward to the period when the N.C.D.C. itself will provide the necessary personnel for the manning of these posts of Directors even including the post of the Finance and Managing Directors. We have come across many officials in the Corporation, specially amongst the younger groups, who have struck us as having the potential to undertake leadership and competent management. If their talents are properly developed, there is no reason why some of them could not rise to these top posts. The fact that they could do so may add to the incentives of the service in the Corporation and thereby raise efficiency all round.

6.6. Besides the four whole-time Directors and a part-time or a whole-time Chairman who has both the time and inclination to take close interest and to provide guidance and public relations support to the overall working of the Corporation, the Board may also include a number of part-time Directors. Here again, there should be some 3 or 4 Directors who would also have the time and inclination to take close interest in the working of the Corporation. It would be useful if they have the knowledge of some specific aspects of the working of the coal industry whether technical, financial or administrative. But the more important consideration which could influence their selection is the extent to which they can devote their time and energy for an effective contribution to the working of the Corporation and that they can be relied on to ensure adequate team work. Government may be represented on the Board of Directors by 2 Directors; one from the Ministry of Steel, Mines & Metals and one from Ministry of Finance. No other Government department need be represented. There should also be a Director with the knowledge and experience of trade union matters. We have been informed that the presence of such a Director on the Board of the N.C.D.C. has been found to be particularly helpful in maintaining over a long period of years, healthy and progressive management-employees relationship.

6.7. To sum up, we consider that the Board should comprise of a part-time or a whole-time Chairman, four whole-time functional Directors (including the Managing Director), two Government representatives as part-time Directors and some four or five other part-time Directors, including a suitable Director with the knowledge and experience of Trade Union matters. The Board will thus comprise of some 11 or 12 Members. The Articles of Association provide for the appointment of a maximum of 15 Directors.

6.8. Currently, the Managing Director of the N.C.D.C. is a Director of the H.E.C. and of the Hindustan Steel. Correspondingly the N.C.D.C. has on its Board as members the Managing Director of the M.A.M.C. and the H.S.L. Obviously these arrangements were made with a view to provide contacts between the public sector units concerned who are either suppliers or consumers of the production in their respective units. In the scheme of things that we have suggested, there need be no such representation at the Board level. The necessary contacts between these various public sector units are essential; but these could be provided otherwise, as for example in the form of Coordination Committees. The reason why we do not think that this kind of coordination need to be provided at the level of Board of Directors is that these top managers are busy men and have not the time and only a limited interest to devote themselves to the working of the sister Corporations. What we envisage is that the members of the Board should assume more comprehensive and overall approach to their functions and should be able to devote sufficient time to make an effective contribution to the work of the Corporation.

6.9. We have emphasized earlier in this Chapter the importance that we attach to continuity in policies and continuity in top-management. We, therefore, consider that once the Directors are chosen with the care as suggested in an earlier paragraph, they should have a reasonable tenure so that they are able to make an effective contribution to the work of the Corporation. For this purpose, a convention should be followed that the appointments of

part-time Chairman and/or Directors should be renewed as necessary in order that each incumbent holds the position for not less than three continuous years and possibly even five continuous years. To begin with, half the number of part-time Directors (including the Chairman) may have a three year tenure and the other half five years. This will introduce a system of rotation which would ensure year-to-year continuity over a period of years. It is understood, of course, that the whole-time Directors will be appointed for a minimum period of five years, which period could be extended as necessary.



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VII—SOME PROBLEMS RELATING MAINLY TO HEAD- QUARTERS MANAGEMENT

7.1. Having dealt with the questions relating to the constitution of the Board of Directors and the powers that should be effectively vested in them, the Committee wish to turn now to making certain preliminary recommendations in regard to the management of the Corporation. In this Chapter it is proposed to deal primarily with the management at Headquarters and then again with only a few of its important aspects.

7.2. The Board of Directors has delegated a large part of its powers to the Managing Director. This delegation conforms to the sound business practice, in so far as the best management is the one where day-to-day decisions are quickly taken and speedily implemented. The Board of Directors however constituted cannot meet often enough to make these decisions nor can it concern itself with matters of day-to-day detail. The Committee has no comments to make on the existing scheme of delegation; it generally endorses the extent of delegation of powers made to the Managing Director.

7.3 The Committee has suggested that besides the Managing Director, there should be three other functional Members of the Board of Directors. A question may be asked whether the presence on the Board of Directors of two or three whole-time officials of the Corporation, who are in the management hierarchy subordinate to the Managing Director will not lead to some of the day-to-day matters being brought before the Board. We suggest that such a contingency should be avoided by providing that in the exercise of powers delegated to the M. D. and within these delegated powers, he will also have the powers to over-rule any member of its management whether or not that member is also a Member of the Board of Directors. The Board should not require a functional Member to bring any matter within the delegated powers, on which he does not agree with the Managing Director, to the notice of the Board of Directors nor should the Managing Director be required to do so. If this position is clearly laid down and well understood, there will be little danger of any day-to-day matters other than those which are of major importance being brought to the Board of Directors with differences in views expressed by the functional members. The functional members will be free to express their views and will, in fact, be expected to make their frank contribution to the discussions of the Board of Directors, in matters which are brought up before the Board for decision.

7.4 To enable the Board of Directors to function properly, they should prescribe a number of returns and reports which should be brought to the meetings periodically so that they get closely familiar with the progress and performance of the Corporation. In an earlier paragraph, we have referred to certain matters which are not at present placed before the Board (vide para 4.4). These are only illustrative, and we suggest that the reconstituted Board be asked to review the position. The intention is to enable the Board to discharge its responsibilities effectively. If any Member of the Board

possesses special aptitude or knowledge on any aspect of the working, he may be also called on to study those aspects and advise the Board. This practice will ensure continuing and abiding interest by the part-time members in the work of the Corporation.

7.5. While large powers are delegated to the Managing Director, it is to be understood that the M. D. cannot be expected to personally exercise all those powers. The delegation, in fact, provides that the M. D. may in turn re-delegate some of his powers. At present, there is delegation of powers up to certain specified limits to the Area General Managers and lower down to the Deputy Superintendent of Collieries. We suggest sufficient powers be redelegated also to the heads and officials of various departments at the headquarters. We have come across instances of minor matters being placed before the M. D. for his approval. If the M. D. is to carry out his principal functions adequately, it is necessary that he is not burdened with such routine. A review should be made of the type of cases which are now put to him for orders and appropriate delegations made to appropriate officers in the headquarters office.

7.6 We consider that the primary task of the M. D. should be to provide leadership to the management team to ensure that there is adequate and effective coordinated action, that the decisions are taken with requisite speed and care and promptly implemented. These are also the important duties and functions to which the M. D. should devote his whole time attention. Ordinarily, the M. D. should not be in charge of a specific Department. However, for reasons noted elsewhere, we have suggested that for some time to come, he should devote a great deal of his attention to sales and to the reorganisation of the sales department. The Sales Manager would be working directly under his control.

7.7. The Technical Member of the Board of Directors should function as the head of all technical departments. In his charge there should be—

- (1) A Chief Engineer (Production) who would be responsible for planning of production and operation of the revenue collieries;
- (2) A Chief Engineer (Planning) who would be responsible for all matters connected with the development projects from the time of their inception to the time they are placed on revenue account; and
- (3) Other heads of departments like Electrical & Mechanical, Geological work, Civil Engineering etc. Their precise designations and ranks would depend on the volume of work as it develops from time to time. We believe that at present, while the head of Electrical and Mechanical (including excavation) has to be of the rank of a Chief Engineer, for the geological and civil engineering departments, officers of lower ranks may be adequate as heads of these departments.

7.8. Similarly, the Finance Member of the Board of Directors should be incharge of the following functions :—

- (1) Internal Audit;

- (2) Accounts including cost accounts; and
- (3) Financial Advice.

Separately we have suggested decentralisation of accounts functions to the areas and that this decentralisation be accompanied by giving a very important role to the internal Audit. We would like to see early strengthening of the internal audit set-up in the Corporation. Not only should it look into questions of whether in incurring expenditure rules and procedure as prescribed are followed, it should from time to time undertake studies of comparative unit costs, efficiency with which various tasks are undertaken at the areas and colliery levels in stores depots and workshops, as well as in the sales offices. The function of the Chief Cost Accounts Officer would be it to provide technical guidance to the cost personnel, to coordinate the cost data received from various accounting units of the Corporation, to present it to the management and the Board of Directors, with a critical appreciation of the comparative results, and to bring to the notice of the management matters arising from the cost data, requiring management attention and decision. We have separately suggested that the Area Accounts Office, instead of working on an imprest should become fully responsible for store accounts, monthly financial accounts and the balance sheet for the area leaving it to the headquarters only to coordinate the accounts received from them as well as from other accounting units. The Chief Accounts Officer, should, however, be required to inspect, supervise and guide the Area Accounts Offices in technical matters of accounting.

7.9. Current orders provide that all financial powers delegated to the A.G.Ms. are exercised by them in consultation with the Deputy Financial Advisers. Where there is a difference of view between them, the matter is referred to Ranchi for final decision. In the earlier years, the Area General Managers had been given the power to overrule their Financial Advisers the circumstances in which this power was withdrawn are not altogether clear. The correct system is for Area General Managers to be empowered to overrule their Financial Advisers when they consider it necessary to do so in the interest of production and progress of development project. The A.G.Ms. should, however, be required to record their reasons in such cases and to report the matter to the headquarters immediately after the decision is taken.

7.10. The third important area of work is the administration. The Board Member in charge of administration should have under him, a Chief for administration and a Chief Personnel Officer. He should also be in charge of stores and purchase which should have a Controller of Stores and Purchase as its main functionary. He may also take charge of certain other miscellaneous departments like security, and medical attendance and Legal advice.

7.11. Vigilance should remain independent of the three functional members of the Board of Directors and be directly in the charge of the Managing Director, with a Chief Vigilance Officer to assist him.

7.12. With these changes, the management chart of the headquarters in Ranchi could be presented as in the diagram.

7-13. We have stressed earlier and we wish to reiterate that the Managing Director and these three whole-time Members of the Board should work as a headquarters management team. While each member will have powers of decisions in matters relating to departments assigned to him, he should be required to take an overall and not a narrow departmental view in dealing with these matters. His decisions are, in fact, decisions on behalf of the Managing Director or of the headquarters management team. Various devices can be evolved, such as an half-hour meeting each day of this management team, so as to foster the necessary team spirit. The Managing Director as leader of the team will doubtless pay attention to evolving these devices, so that the group works in the spirit in which it is conceived. We also consider that the Managing Director and the functional members should undertake frequent tours of inspection of the various areas and collieries.

7-14. The Managing Director and three whole-time members of the Board are key posts in the administration and management of the Corporation. It is important that the incumbents of these posts are appropriately remunerated. The three whole-time members of the Board should be co-equal in status and remuneration. Their remuneration should ordinarily be only marginally lower than that of the Managing Director. As stated earlier, every endeavour should be made to make a careful selection of persons for appointment to these posts and if, for attracting suitable persons, higher salaries have to be given, there should be no hesitation to do so. Any small extra costs incurred in such higher remuneration will more than repay itself in the economies that may come about in the working of the Corporation by reason of its having a competent top management.

7-15. We have stated earlier that at the area level, sufficient administrative and financial powers be vested in the Area General Managers. We have reviewed the existing powers and consider that these appear to be adequate for the time being. They could be reviewed if necessary after some time. In the present organisational chart, the area General Managers themselves are shown as subordinate to and under the control of the Director of Production or D.G.M.(T). It would be more appropriate to show Area General Managers as under the control of the Managing Director and of the headquarters management team. Area General Manager is the top functionary in the area concerned and holds position somewhat similar to that of the M. D. He is not only in charge of production and development but he should also be made responsible for proper functioning of other departments like administration, accounts, civil engineering, repairs and maintenance, labour relations, etc. It is not therefore correct to show Area General Manager as being under the control of Director of Production or of D.G.M.(T). The A.G.Ms. should be free to correspond direct with the appropriate functional members of the Board, as for instance with Administration member on labour and staff matters or on stores and purchase matters.

7-16. In providing the administrative structure as indicated in the preceding paragraph, it is important to ensure that none of these top-management posts are left vacant for any appreciable length of time. The major difficulties which have arisen in the working of the Corporation in recent months

and years are attributable at least in part, to the absence of one or other functionary for several months on end. Since Shri Vadera left the Corporation early in 1965, there is no Chief Personnel Officer dealing with the important area of work namely labour relations. Since Shri Kumaramangalam left the Corporation towards the end of 1965, there has been no senior officer in charge of Administration (except for a short period). Even such a high technical post as that of D.G.M.(T) is now filled on a provisional basis. The difficulties that arose owing to the gap in the continuity in the post of M.D. are now well-known and do not need to be restated. The Committee consider that greater attention should be given than hitherto, to ensure that all these and other top posts are properly staffed and not left vacant for any appreciable length of time.

7.17. We understand that one reason why most of the top posts have remained vacant in the past is the time that is taken in the selection of suitable personnel and in sanctioning their terms of appointment. The Board of Directors has powers to sanction posts and make appointments to them on scales of pay maximum of which does not exceed Rs. 2,250. In regard to the posts for which higher emoluments have to be given, the sanction of the Central Government is necessary. Within the Government departments these proposals have to be considered by the Ministry of Steel, Mines and Metals in consultation with the Ministry of Finance in regard to the terms proposed and thereafter obtain the concurrence of the Ministry of Home Affairs and with the approval of the Appointments Committee of the Cabinet. This procedure especially in regard to the fixation of terms of appointment sometimes takes a long time. As the emoluments of the officers concerned are not met directly from the Consolidated Fund of India, it is not clear as to whether the sanctioning of the remuneration and other terms in such cases need require the approval of the Ministry of Finance. It would be desirable, in any case, if the financial powers for settling the terms of appointment are delegated to the Ministry of Steel, Mines and Metals.

7.18. Another important lacuna which needs the attention of the management is the absence of any orders defining the functions and powers of each officer in the Ranchi office. Sound management requires that each officer should know what his functions, duties and responsibilities are. At present there seems to be some confusion in this matter. Duties are assumed by inference and implications. In a well-organised office, duties of each individual right down to the Lower Division Clerk are properly defined and are well understood by each person working in it. This system needs to be introduced both in the headquarters office as well as in the working units. It should be the responsibility of each head of the department to ensure equitable allotment of duties of officers working under him and to see that these duties are properly carried out; each officer, in turn, should be responsible for similar allocation of duties amongst his subordinate and so down the line.

Another office matter which needs to be attended to, is to control the present trend of writing long notes in each department on problems that arise for management decisions. Given team spirit, many decisions can be reached quickly after discussions and in a commercial concern like N.C.D.C. frequently only the final decision would need to be reduced to writing.

7.19. In this first report, we have referred only to those matters which require immediate attention. In our subsequent report, we hope to deal with these organisational matters more fully. In the meantime, we expect, that if the top management is restructured in the way suggested in this report, it would itself set the tone for improvement. It will naturally review the many working procedures and matters of details and seek to improve efficiency and competence at various levels, which is after all, the main goal of all management efforts.

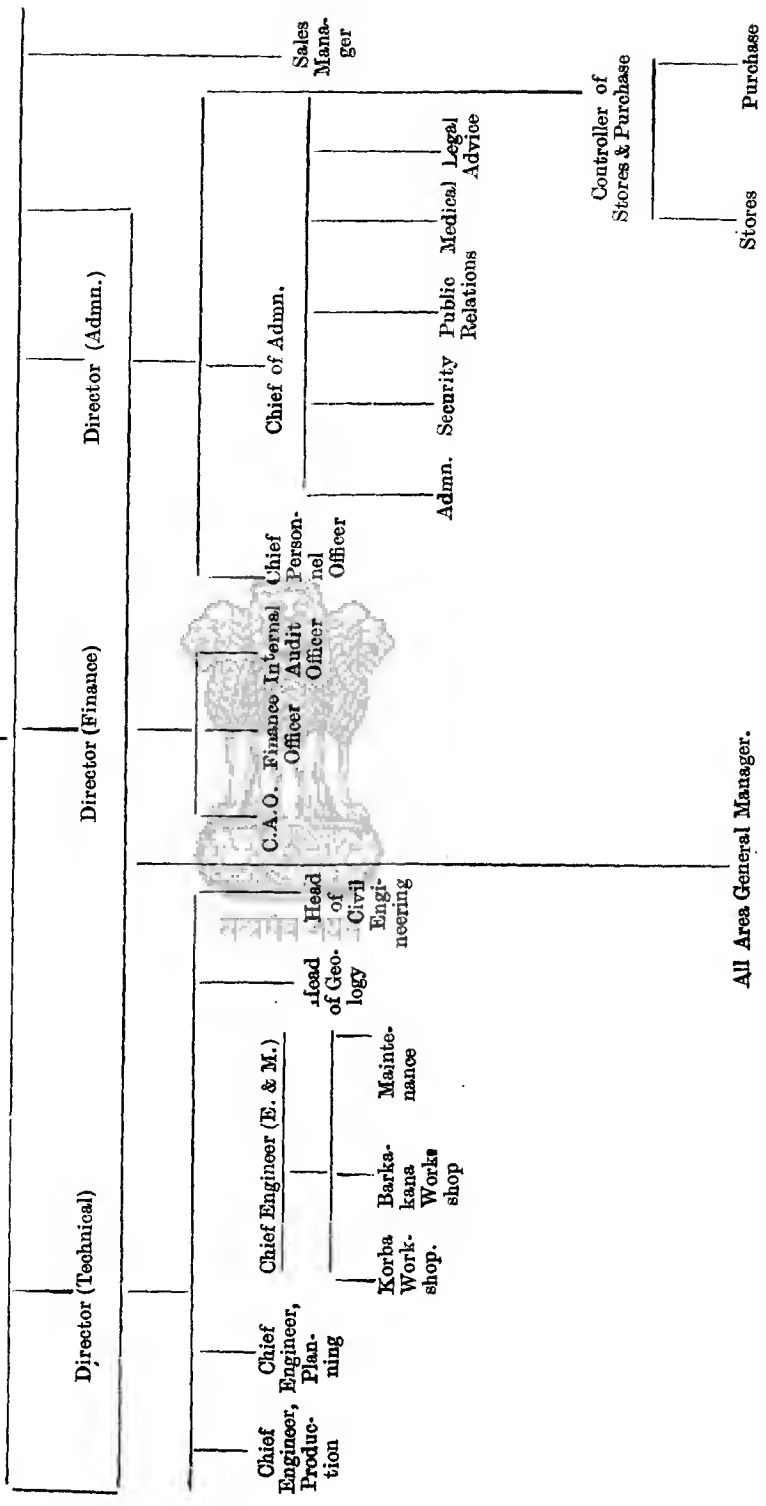
7.20. We believe that an organisational structure of the kind that we have recommended would be in a better position to ensure that decisions are promptly made and are faithfully implemented. Such a management will doubtless, evolve procedures for inspection, supervision, receiving of requisite statistical and progress information to enable it to exercise broad regulatory control over the field units. Decentralisation and delegation of powers does not mean abdication of powers or authority. It remains the function of the headquarters office to ensure that powers are properly exercised and an effective watch kept on implementation of policies and orders. Serious notice should be taken of any lapses. Indeed, it is by a judicious use of incentives, encouragements and where necessary, reprimands and penalties that an administrative structure would derive the best that can be obtained from the services of its personnel.



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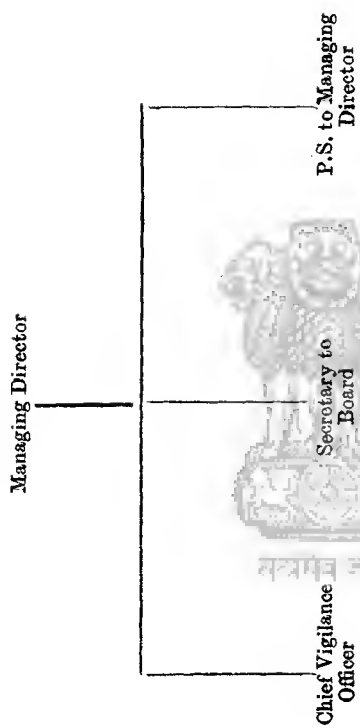
MANAGING DIRECTOR

Personal Section of the Managing Director



All Area General Manager.

(Personal Section of Managing Director)



VIII—SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

For the Third Five Year Plan, the target for National Coal Development Corporation was 31·0 million tonnes out of a total production target for the coal industry of 98·5 million tonnes. This target appears, in retrospect, to have been based on questionable assumptions. (2·5)

2. It was with a view to fulfilling the high Plan targets that the National Coal Development Corporation embarked on an expensive programme for acquiring machinery and manpower and for the development of mines in several areas, particularly in the outlying areas of Madhya Pradesh, Orissa and Maharashtra. Some of the present difficulties of National Coal Development Corporation are due to the magnitude of the development and the speed with which it was undertaken. Large and expensive projects which the N.C.D.C. had undertaken have led to investments in capital assets which are not presently needed for the current level of production. (2·8)

3. In the process of development with speed and since 1964, of retrenchment and readjustment, several organisational weaknesses had not received adequate attention and stresses and strain have appeared affecting all aspects of working of N.C.D.C. (2·9)

4. It is likely that after some years, provided the economy picks up at the rate which is essential for the country's industrial growth, the N.C.D.C. could become the mainstay for meeting the increased fuel demand in the country. The immediate problems before the National Coal Development Corporation are—

- (a) to build up sales in a competitive market;
- (b) to remove organisational and other weaknesses; and
- (c) to economise on the methods of production. (2·11)

Sales—

5. For reorganising the N.C.D.C.'s sales offices and sales procedure, the following steps should be taken immediately—

- (a) The Corporation should undertake the survey of the market, current and prospective for each of its mines;
- (b) It should then establish close contacts with its principal prospective customers and wherever possible enter into long-term contracts with them;
- (c) The Corporation should guarantee continuity of supplies;
- (d) Quality should be rigidly adhered to. A system of inspection at the time of loading and surprise checks at the destination in the case of large consumers should be introduced to ensure standards;
- (e) Prices should be competitive and related to the quality of supplies. Reduction and rebate should be provided to large consumers for sales in excess of guaranteed minimum and also for prompt payment;

- (f) As a public sector undertaking, N.C.D.C. has the special responsibility of developing expanding markets, particularly in the rural areas;
- (g) As far as possible, sales to public enterprises and even to large private sector enterprises should be made direct and not through middlemen. The middlemen's services could, however, be utilised for developing the markets fully and for exploring new markets. The appointment of such middlemen as agents for sales should be made after careful selection with due regard to their financial status and capacity to expand the market in the particular area. Their functions and liabilities should be clearly defined and their obligations enforced;
- (h) There should be closer liaison at working levels between the area officers and collieries on one hand and the sales department on the other;
- (i) The billing system should be speeded up. Bills can be prepared daily and for each consignment, and sent direct by the collieries or Area Accounts Offices to the consignees keeping the central sales office informed for the purpose of watching the recoveries. Interest should be charged on overdues. (3.3.1)

Transport—

6. The Railways may examine the procedure for the allotment and supply of wagons in the context of the situation prevailing after decontrol with a view to simplifying them and removing over-centralisation. With a little adjustment it should be possible to ensure that there is regularity in the supply of wagons and punctuality in their arrival at the colliery. There should also be to proper arrangement for liaison between the N.C.D.C. and the Railways at various levels. (3.3.2)

Production Planning—

7. Each mine should prepare cost data reflecting the actual expenditure and showing separately the direct costs which vary with production and the over-head and fixed costs. The cost data should be capable of identifying cost elements which are within the control of the local managers. Stores accounts should be brought up-to-date and the financial and cost accounts reconciled.

Services of persons trained in Industrial Engineering should also be employed for bringing about higher productivity and lower costs.

On the basis of the cost data, the Headquarters of the N.C.D.C. should draw up an annual plan of production which would give optimum trading position. Sales efforts and production efforts should be concentrated on those collieries where there is large margin between sales realisation and production cost or at least the variable element in it. In collieries where the economics are unfavourable the N.C.D.C. may even consider suspending production or abandoning them. (3.3.3)

Stores and Purchases—

8. In order to ensure smooth and regular supply of plant, equipment, stores and spare parts, the following measures are suggested—

- (a) The indenting procedure should be simplified. In this respect we recommend that posts of Controller of Stores and Controller of Purchase be combined;

- (b) To the maximum extent possible, rate contracts for each important store should be arranged with more than one supplier;
- (c) The Corporation should take special measures to ensure full utilisation of the manufacturing and repairing capacity which it has at its command in its workshops. (3.3.4)

Accounts—

9. In all the areas, stores valuation accounts have not been kept up-to-date. This lacuna is believed to be responsible for the non-reconciliation of cost accounts with financial accounts as well as for the exhibition of large quantities of "Stores in transit" in the annual balance sheet. The stores accounts should be brought up-to-date as from some pre-determined date. If this is done, it should be possible to provide not only the monthly reconciliation of the costs and the financial accounts but also to present the monthly balance sheet for each area and each accounting unit.

As the transactions in the areas are large, the use of imprest accounts system does not appear to be appropriate. The area accounts office could be required to produce complete accounts monthly, quarterly and annually.

Internal Audit—The Internal Audit Section requires to be strengthened urgently both in number and quality. It can then be given specific problems for study and asked to locate wastes and loopholes if any. While the accounts are decentralised and become parts of the area offices, the internal audit should be the responsibility of the management at the Headquarters. (3.3.5)

Administration and Organisation—

10. Some of the measures needed for infusing a sense of discipline and toning up of the administration are indicated below—

- (a) The duties and functions of each officer should be defined clearly;
- (b) The present compartmental approach of officers in different branches should be given up; and
- (c) The administrative procedures should provide for incentive for good work and speedy penalty for lapses. (3.3.6)

Structure of Management—

11. The system of nominating a Board of Directors comprised mainly of officials of interested Ministries and organisations has resulted in break of continuity and insufficient interest by Directors in the work of the Corporation, and a virtual abdication of the powers by the Board. While the Board in which the powers were formally and legally vested remained inactive, the effective power was in the Department of Mines and Metals and the Managing Director. The Committee feels that the balance of power should be restored and the powers and responsibilities of the Central Government, the Board of Directors and the Managing Director defined. (4.1 to 4.5)

Relationship between the Corporation and the Central Government—

12. The areas of responsibility of the Government and the Board of Directors as envisaged in the Articles of Association of the Company should be reaffirmed. The Central Government should concern itself mainly with the affairs of the Corporation in regard to the development plans. The Government may also lay down codes of conduct for labour relations, trading practices etc. which

may be common to all public undertakings. All other matters such as co-ordination with other Government agencies (e.g., Hindustan Steel, Electricity Undertakings), pricing policy etc., should be left to the Board of Directors and the management of the Corporation. In particular all matters relating to revenue collieries should be finally disposed of by the Board of Directors and under its supervision and guidance by the Managing Director and the top management. In respect of these collieries, the Central Government should however receive a performance budget before the beginning of the financial year and periodic progress reports, financial and physical.

Where the Central Government intervenes with its powers of issue of Directive, in public interest, the concomitant financial impact should be met from Government revenues. The Corporation's balance sheet should not be saddled with the burden of the resulting losses. (5.4 to 5.14)

Development of New Projects—

13. In regard to the development projects, the Government should require N.C.D.C. to prepare project reports after detailed surveys and studies. These project reports should contain justification for taking up the project, expected financial results, way in which the mine is to be developed, details of equipment required etc. (5.15)

14. In the present context of demand, N.C.D.C. need not undertake any new projects for some years except to cater to the needs of a specific consumer. Since large coal consuming projects like steel plants and power houses take several years for being commissioned, N.C.D.C. need plan new mines only at the same time as the consuming projects. Detailed planning, even if it is time consuming should precede the development work as it would lead to reduction in the construction time and economy in cost. (5.16)

15. At the time of preparation of a new project itself, the planning authorities should indicate fairly clearly as to the stage at which the project should be brought on to the revenue account. The situation thereafter could be reviewed by a group of technical and financial officials at the Headquarters in consultation with the Area General Manager and the Project Officer. The group would advise as to the date from which the project should be brought on to the revenue account. The Corporation's decision in the matter could also be subject to the approval of the Government of India. (5.17)

Depreciation Fund—

16. The Corporation should maintain a separate depreciation fund for meeting the expenditure on major maintenance and replacement of machinery instead of the present practice of adjusting the depreciation provision in the annual capital budget. It would be in the interests of the Corporation as well as in accordance with best business practice if the Central Government were to meet the entire cash requirements for all the capital development schemes leaving its internal resources to be used for working capital, replacement needs or if any surplus is still available, for investment in Central Government securities. (5.18 and 5.19)

Composition of the Board of Directors—

17. The Chairman of the Board of Directors may be whole-time or part-time, but when a part-time Chairman is appointed, care should be taken to see that he is in a position to devote a great deal of his time and interest to the work of the Corporation, and provide adequate guidance to the Managing Director. In particular, the Chairman should be required to assume high level public relations duties.

(6·2)

18. Other whole-time Directors should be appointed in consultation with the Chairman and Managing Director, one for Finance, one for Technical matters and one for Administrative matters.

(6·3)

19. The whole-time Directors should work as a team and while the Managing Director will have overriding powers, the decisions should ordinarily be reached through consultations and discussions

Working procedures should be specially evolved to ensure this team approach.

(6·4)

20. Besides the Chairman and the whole-time Directors, and in addition to 3 or 4 part-time Directors, one representative each of the Ministry of Steel, Mines and Metals and the Ministry of Finance and a person with knowledge and experience of trade union matters should be nominated to the Board. The Committee does not consider it necessary for other Ministries of the Government of India or public undertakings like Hindustan Steel Limited, Mining and Allied Machinery Corporation etc. to be represented on the Board.

(6·6 to 6·8)

21. In order to enable the part-time Directors to make an effective contribution to the work of the Corporation, their appointments should be renewed as necessary so that each incumbent holds the position for not less than 3 continuous years and possibly even 5 continuous years. The whole-time Directors should be appointed for a minimum period of 5 years which could be extended as necessary.

(6·9)

Headquarters Management—

22. The Committee fully endorses the extent of delegation of powers at present made to the Managing Director. In the exercise of these powers he would have full authority to over-rule the other functional directors.

(7·2 and 7·3)

23. To enable the Board of Directors to function properly, they should prescribe a number of returns and reports which should be brought to the meetings periodically.

(7·4)

24. The Committee suggests that sufficient powers be redelegated to the heads and officials of various departments at Headquarters so as to relieve the Managing Director of routine and unimportant work.

(7·5)

25. Ordinarily the Managing Director should not be in charge of any specific Department. However, for some time to come, sales and sales promotion will have to be specifically looked after by him. The Sales Manager will work directly under him.

(7.6)

26. The Technical Director should be in charge of all technical departments and have under him a Chief Engineer (Production) responsible for the planning of production and operation of revenue collieries, a Chief Engineer (Planning) responsible for all matters connected with development projects, Chief Engineer (Electrical and Mechanical), Geologist and Civil Engineers.

(7.7)

27. The Finance Director should be in charge of Internal Audit, Accounts and Financial Advice. The Internal Audit should be strengthened early and asked to undertake studies of comparative unit costs etc. The Chief Cost Accounts Officer should coordinate the cost data, provide technical guidance and bring to the notice of the management, matters arising out of the cost data that require their attention.

(7.8)

28. The Area General Managers should be empowered to over-rule their Financial Advisers where they consider it necessary to do so in the interest of production and progress of development projects. They should, however, be required to record their reasons and to report the matter to the Headquarters immediately thereafter.

(7.9)

29. The Director in-charge of Administration should have under him a Chief of Administration and a Chief Personnel Officer. He should also be in charge of Stores and Purchase and miscellaneous departments like Security, Medical, Legal and Public Relations. Vigilance should remain with the Managing Director.

(7.10 and 7.11)

30. The whole-time Directors should be carefully selected and if necessary higher salaries may be given for attracting suitable persons.

(7.14)

31. In the present organisational chart, the Area General Managers are shown as subordinate to and under the control of the Director of Production. It would be more appropriate to show them as under the Control of the Managing Director and the Headquarters management group.

(7.15)

32. Greater attention should be paid to ensure that all the top posts are properly staffed and not left vacant.

(7.16)

33. The procedure for sanctioning the top posts and filling them up has to be speeded up and if necessary, the Department of Mines and Metals could seek delegation of necessary powers for the purpose.

(7.17)

34. Duties and responsibilities of each official in the Headquarters office should be properly defined and well understood by each person working in it.

(7.18)

(Sd.) G. R. KAMAT

Chairman

(Sd.) MOHAN LAL GAUTAM

Member

(Sd.) S. S. SALUJA

Member

(Sd.) RAM SAHAY

Secretary

February 17, 1968.



APPENDIX I

GOVERNMENT OF INDIA

MINISTRY OF STEEL, MINES AND METALS (DEPARTMENT OF MINES AND METALS)

New Delhi, the 22nd July, 1967

RESOLUTION

No. C2-8(7)/67—The performance of the National Coal Development Corporation Ltd., Ranchi (a public sector undertaking) has been causing concern for some time past inasmuch as production has not been commensurate with the investment made and there is no adequate return on capital invested. There may be scope for improvement in regard to such matters as planning, administrative and organisational set-up, staffing, procurement of equipment, control of stores, financial and budgetary control, management-employees relationship and marketing. The alleged malpractices and financial irregularities need also looking into.

2. Government feel that an independent review of these problems, among other issues, is likely to be helpful at this stage in order to enable remedial actions to be taken for removing any deficiencies which may be affecting overall and detailed performance of the various units of the National Coal Development Corporation. Government, therefore, hereby appoints a Committee consisting of—

- | | |
|--|------------------|
| 1. Shri G. R. Kamat, I.C.S., formerly Secretary,
Planning Commission. | <i>Chairman.</i> |
| 2. Shri Mohan Lal Gautam, M.L.A. (U.P.) | <i>Member.</i> |
| 3. Shri S. S. Saluja, Acting Principal, College of Mining and Metallurgy,
Banaras Hindu University, Varanasi. | <i>Member.</i> |

with its headquarters at New Delhi to conduct such a review.

Shri Ram Sahay, Under Secretary, Department of Mines and Metals will be the Secretary of the Committee.

3. The Committee will identify and assess deficiencies and ascertain the causes therefor in respect of each of the spheres among others, referred to in paragraph 1 above. The Committee will also indicate what remedial action can be taken and what improvements, if any, be made in the policy and organisational set up to ensure full utilisation of the installed capacity, not only to bring about efficient performance immediately but also to gear up the organisation to take up additional responsibilities in future.

4. The Committee will report to Government by the *31st October, 1967.

(Sd) N. C. SHRIVASTAVA

Secretary to the Government of India.

ORDER

Ordered that a copy of this Resolution be communicated to all State Governments, Administrators of Union Territories, all Ministries of the Government of India, President's Secretariat, Cabinet Secretariat, Prime Minister's Secretariat, Planning Commission, Comptroller and Auditor General of India, Accountant General, Commerce, Works and Miscellaneous, Lok Sabha Secretariat, Rajya Sabha Secretariat, Managing Director, National Coal Development Corporation, Ranchi, All Directors of the National Coal Development Corporation.

Ordered also that a copy of the Resolution be published in the Gazette of India for general information.

(Sd) N. C. SHRIVASTAVA

Secretary to the Government of India.

To

The General Manager,
Government of India Press,
Faridabad.

*This date was subsequently extended upto 20-8-1968.



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N.C.D.C. COMMITTEE—QUESTIONNAIRE

I. Project Planning and Development

(a) What were the principal considerations in the selection of the project site? Were any surveys made to determine the quantity and quality of coal available at the site, the economies of its production, transport facilities and marketing potential for the mine? Please give such particulars, in brief, as are available from the Project Report or from your knowledge.

(b) The following information may be furnished :

- (i) The capital cost of the Project as indicated in the sanctioned Project Report and the actual cost.
- (ii) Estimated time of completion and the actual date of completion.
- (iii) Anticipated level of production and the actual level of production during each of the last three completed financial years 1964-65, 1965-66 and 1966-67.
- (iv) If any changes were made in the scope of the project, after it was sanctioned, the main changes and the reasons why they were made should be indicated.

II. Production and Cost of Production

(a) If the level of production is below what was anticipated, please indicate reasons therefor.

(b) Given adequate market, what is the optimum rate of production that can be achieved with the equipment and labour now employed.

(c) What measures would you suggest for increasing the rate of production?

(d) The estimated cost of production per tonne of coal as given in the Project Report and the actuals for each of the last three years.

(e) Is there scope for reducing the cost of production? If so, please suggest concrete measures to achieve economies.

III. Equipment and Employment

(a) It has been alleged that excessive equipment has been provided at some of the collieries and that the rate of utilisation is low. Please give particulars in respect of your project giving the lists of the main items of equipment, the rate of their utilisation during the last three years, whether the rate of utilisation can be stepped up and if so, to what extent and in what way?

(b) What are the existing maintenance facilities and what improvements would you suggest in them ?

(c) It has also been alleged that excessive number of workers are employed at some of the collieries. Please give details in respect of your project giving average numbers employed during each of the last three years.

(d) What was the output per man-shift envisaged in the Project Report and what has been the actual output per-man-shift during the last three years?

(e) If either labour or equipment or both is found to be excessive to the needs of the project, what would you suggest for providing alternative employment for them?

IV. Transport and Sales

(a) It is often alleged that one reason for restricted output is the irregular and inadequate supply of wagons. On the other hand, on several occasions some of the wagons supplied return empty and large amounts are incurred in demurrage. What is the position in your project? What improvements would you suggest?

(b) Have you any suggestion to make for increasing the sales of coal produced in your project ?

V. Administration and Industrial Relations

(a) Do you think that the production and economy of production would be improved if additional administrative powers are delegated to you. If so, indicate in concrete terms additions that should be made?

(b) Are relations with labour satisfactory? If not, what measures would you suggest to bring about an improvement ?

VI. General

Any other material or suggestions, which in your opinion could be of assistance to the Committee in the review of the working of N.C.D.C.

APPENDIX III

SECTION I—ESTABLISHMENT

(1) The creation of permanent posts above 80 per cent of the total sanctioned posts, temporary and permanent, and exceeding the Scale having a maximum of Rs. 950 p.m.

(2) The creation of temporary posts in the scale whose maximum exceeds Rs. 950 p.m.

(3) The appointment of persons on a scale of pay having a maximum exceeding Rs. 1,400 p.m.

(4) The fixation of initial pay of selected candidates for appointment at any higher stage exceeding five increments in the time scale to any post which he is empowered to appoint.

(5) The grant of any remuneration or special pay to any employee, otherwise than in the following circumstances:—

(i) Holding in addition to his own duties the current charge of an equivalent or higher post during temporary absence Ex-India on duty of the regular incumbent for a period not less than 30 days.

(ii) Undertaking work of temporary nature in addition to his own duties.

(iii) Undertaking in addition to his own duties the current charge of a higher post for not less than thirty days.

(iv) Holding charge of another equivalent post in different office, in addition to his own, for a period not less than thirty days.

NOTE—The rate of remuneration in the aforesaid cases shall not exceed 20 per cent of the grade pay of the employee.

(6) The grant of honorarium or reward for specially meritorious work exceeding Rs. 500 in each case and exceeding the total of Rs. 10,000 in any financial year.

(7) The termination otherwise than on acceptance of resignation from service of employees the maximum of whose scale of pay exceeds Rs. 1,400 p.m.

SECTION II—FINANCIAL AND MISCELLANEOUS

(1) The sanctioning of schemes/works and incurring of expenditure thereunder not covered by approved budget unless (i) the Managing Director certifies that provision shall be made in the revised estimates, (ii) the cost of scheme/work does not exceed Rs. 20 lakhs and (iii) such schemes/works is not inconsistent with any previous decision of the Board.

(2) The incurring of expenditure in respect of the approved projects in excess of 10 per cent of the overall provision contained in the approved project report, where such excess expenditure has been approved by the Government,

Provided that in case of emergency the Managing Director may incur such expenditure, in which case the fact shall be reported to the Board at its next meeting.

(3) The acceptance within his powers of any tender other than the lowest without recording in writing the reasons thereof.

(4) The sanction of petty ex-gratia payments of a non-recurring nature exceeding Rs. 500 in any individual case or a total Rs. 10,000 in any financial year.

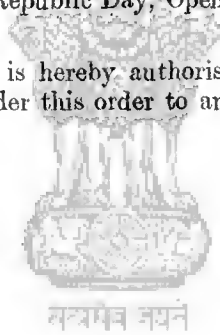
(5) The sanction of non-recurring grants to cultural, charitable and local institutions exceeding Rs. 2,000 per year in each project area or at Head Quarters.

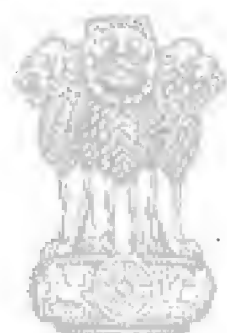
(6) The referring of any claim or demand exceeding Rs. 23,000 (Other than one arising out of an industrial dispute) by or against the Company to arbitration and execute the awards.

(7) The write off losses exceeding Rs. 10,000 in each case.

(8) The incurring of expenditure of contingent nature on special occasions such as Independence Day, Republic Day, Opening Ceremony, etc. exceeding Rs. 1,000 in each case.

The Managing Director is hereby authorised to sub-delegate any or all powers delegated to him under this order to any of his officer/officers under intimation to the Board.





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SECOND AND FINAL
REPORT
OF
NATIONAL COAL DEVELOPMENT CORPORATION COMMITTEE



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INTRODUCTION

This is the Second and Final Report of the Committee appointed by the Government of India in the Ministry of Steel, Mines and Metals to review the working of the National Coal Development Corporation Ltd. Our terms of reference were appended to our First Report. For convenience, a copy of the Notification relating to our appointment and of the terms of reference is again reproduced in Appendix I to this Report.

2. At an early stage in our work, we came to the conclusion that on certain organisational aspects, urgent action was needed to improve the working of the Corporation. We considered that the Board of Directors should be reconstituted with a certain number of Functional Directors on it. We also came to the conclusion that changes be made in the organisation of the Corporation at the top level and the methods of working improved. We, therefore, made our First Report in February, 1968, recommending certain measures to achieve these ends. We also referred to a number of immediate tasks to which early attention need to be devoted by the N.C.D.C. and the Central Government. We gather that action is being taken on the recommendations of our First Report.

3. After the submission of the First Report we continued with our critical studies of the past performance and the current problems of the N.C.D.C. In addition, to the field visits, we had undertaken before February, 1968, towards the end of April, 1968, we paid a visit to Korea-Bisrampur area of Madhya Pradesh, where N.C.D.C. has achieved a large coal output, mostly from new projects. We also held further discussions with the officers of the Corporation at Ranchi. We have examined several papers and files of the Corporation and of the Ministry of Steel, Mines and Metals in order to get the information that we needed for our study.

4. As stated in our First Report, soon after the Committee was appointed about a year ago, we defined the scope of our work and issued a questionnaire to the Area General Managers and field officers of the N.C.D.C. Several replies were received to this questionnaire. We had also requested a number of senior officers of the Corporation as well as the past and the present Directors to express their views on the various aspects of the working of the Corporation. Subsequently, we held a number of discussions with many of these officers and Directors, past and present, in Delhi, in Calcutta and in Ranchi. We are grateful to all those who sent replies to our questionnaire, favoured us with their views on the working of the Corporation and spared the time to participate in discussions with us. A list of N.C.D.C. officials who sent replies to the questionnaire is given in Appendix II; a list of other persons who sent us written material is given in Appendix III, and a list of persons with whom we had discussions is given in Appendix IV. The places which we visited are indicated in Appendix V.

5. In April 1968, the Public Undertakings Committee of Parliament made its Tenth Report to the Lok Sabha. This Report was based on the examination of the audit paras relating to the N.C.D.C. as contained in Part III of the Audit Report (Commercial) 1967. In its Report, the Public Undertakings Committee had recorded its conclusions on each of the paragraphs of the Audit Report, and had strongly expressed its dissatisfaction with the working of the N.C.D.C. and had also recommended that "a high powered committee be appointed to probe into the affairs of the N.C.D.C. in detail and the persons responsible for its sad state of affairs be brought to book". On receipt of this Report, the Government of India decided to remit it to us. In his letter of 18th May, 1968, the Joint Secretary in the Department of Mines and Metals asked us "to look into the matters referred to in the Public Undertakings Committee Report."

6. In response to this letter, we pointed out that it might not be desirable or proper for us to re-examine those particular cases which the Committee on Public Undertakings had already examined and on which it had expressed its findings. We also pointed out that, if the intention of the Government was that we should look into individual responsibilities for any defects or faults that we came across, we were not really equipped to carry out such a task. We did not have either the powers or the necessary investigating staff to undertake this work. We also stated that if these tasks were to be undertaken there would be considerable delay in the submission of our Report.

7. As a result of the further correspondence with the Ministry, it was clarified and confirmed that we were not required to go beyond the terms of our reference as given in the Notification dated 22nd July, 1967, that we were not expected to re-examine those issues on which the Public Undertakings Committee had already reached and recorded its finding and that it was not the intention that we should try to fix individual responsibilities for any faults or mistakes. All that was intended was to keep ourselves within the original terms of reference which, in effect, required us to assess the N.C.D.C.'s performance as a whole, and also to point out such mistakes or wrong decisions as we might have come across in the course of our studies.

8. We did not, therefore, think it necessary to alter the course of our studies. The terms of reference themselves required us to carry out a comprehensive assessment of all aspects of the working of the Corporation. Such mistakes, wrong decisions or serious omissions as we came across in the course of our examination have been brought out in this Second and Final Report. In doing so, we have tried to avoid looking at these matters with hind sight and have tried to take into account the particular conditions in which these actions were taken. We have refrained, however, from expressing our views as to the precise role of any particular officer or individual in regard to these faults and mistakes.

9. Our approach has, moreover, been a constructive one. Wherever we found defects and deficiencies, we have considered and suggested remedial measures in our Report. These, in our view, are intended to remove these deficiencies and to avoid the repetition of the mistakes.

10. The first few Chapters of our Report are devoted to the problems of project planning and implementation, the capital investment programmes in coal mine projects. From Chapter X to Chapter XV we have discussed the current problems of productions more especially of sales, transport, maintenance of plant and machinery and the administrative organisation at the colliery level. We have then added two Chapters on area and headquarters organisation. These are followed by a short assessment of the financial results of the Corporation in Chapter XVIII. In the subsequent Chapters, we have dealt with various matters like Training and Research, Coking Coal Projects, Washeries, Industrial Relations, Over-reporting of Stocks and Fires and Complaints of Malpractices and Irregularities. In Chapter XXV we have again dealt with matters of General and Financial administration. The last Chapter gives our concluding remarks. This, in brief, gives the general outline of the arrangements of the Report.

11. An important requirement of our terms of reference was to look into complaints of malpractices and irregularities. We considered that what was required of us was not to specially invite such complaints and to investigate them, but to look into such cases as were brought to our notice or which we came across during our studies. A number of such complaints were made to us. Many of them had already been looked into by Auditors, Vigilance Officers, and Special Police. Some were still under their consideration. We therefore, decided to undertake a scrutiny of certain number of complaints made to us and to ascertain the precise facts in respect of them. To enable us to do so, we requested the assistance of the Department of Mines and Metals to depute an officer to examine the papers and to prepare for us factual material from the files of the N.C.D.C. and of the Ministry. Shri M.S.K. Ramaswami, Deputy Secretary of the Ministry helped us in these matters. We are grateful to the Ministry for making available to us Shri Ramaswami's services and to Shri Ramaswami for giving us the necessary help in this matter.

12. We wish to express our thanks to the Chairman and Managing Director of the Corporation and to their numerous officers who facilitated our work and who endeavoured to get us an insight into diverse aspects of the Corporation's working.

13. We also wish to record our appreciation of the services of our Secretary, Shri Ram Sahay and of the two Senior Research Officers, S/Shri G.V.G. Raman and H.D. Sethi, Shri I.B. Sharma and other members of staff attached to the Committee, its Chairman and the Members. Shri Ram Sahay and S/Shri Raman and Sethi shared the principal burden of all the analytical work which had to be carried out for our use. In addition, they had greatly helped us in collecting data from the records and papers of the Ministry and the N.C.D.C., as also from other sources. Their assistance has been of great value to us.

CHAPTER I

TASKS AND PERFORMANCE

The circumstances in which the Government of India decided to establish a public sector corporation for the production of coal have been briefly mentioned in our First Report. To appreciate the purpose of starting this new corporation and the tasks which were assigned to it, it is necessary to understand the position of supply and demand for coal as envisaged when formulating the Second Five Year Plan. It may be recalled that the Second Five Year Plan aimed at a substantial step up in the development of industries, power and transport. For the first time, a programme was framed for the establishment of many new industries in private and public sector, which required substantially increased use of coal. The matching development in the sectors of power and transport also required that the coal supplies be stepped up. While exploratory work had been taken up, there was no indication, at the time of any large supplies of oil or natural gas becoming available from indigenous sources. Consequently, coal was then thought to be almost the only source of indigenously supplied commercial energy on which the growth of industries, power and transport greatly depended.

2. During the period of the First Five Year Plan, coal production had increased from about 32 million tons to about 38 million tons or by about 15 per cent. Even then considerable shortage was experienced, especially by consumers situated at long distances from the Bengal/Bihar coal field areas. A much larger increase in demand was expected during the Second Five Year Plan. The Plan target was set at 60 million tons, *i.e.*, an increase of 22 million tons or 60 per cent. over the 1955-56 production. It was also expected at the time that as a long-term prospect coal demand would show a continuously rising rate of growth during the subsequent plan periods.

3. Bulk of the coal production was in the private sector. There were eleven state collieries started at various times by various Railway systems and kept in production initially by the Railway Board and later by an administrative unit controlled by the Ministry of Production. Their production formed a fraction of the supplies needed by the Railways for their own use and it was almost wholly taken up by the Railways for their own consumption. Many of these collieries had been under exploitation for several decades and one or two had nearly reached the stage of exhaustion of mineable reserves. Their management and performance were often criticised as inadequate. A Committee specially appointed in 1949 to go into the working of these collieries made several suggestions for the improvement of their performance. The Committee also recommended setting up of an autonomous administrative unit to take over these collieries, so as to improve their working and to increase their output.

4. In 1955-56, the State collieries produced about 2.9 million tons, which along with about 1.5 million tons from Singareni Collieries accounted for the entire public sector production of about 4.4 million tons. The balance of about

34 million tons came from the private sector. When the Second Plan was framed, the Government of India came to the conclusion that to reach the targetted production of 60 million tons by 1960-61 and to provide for a continued rising growth in production thereafter, it was essential to open out new mines.

5. The Industrial Policy Resolution of 1948 required that for a basic commodity like coal, all new undertakings in the industry be in the public sector. The revised Policy Resolution of 1956 reiterated the view that while the private sector was to be encouraged to expand production from their existing units and given reasonable opportunity for expansion as required, the new undertakings were to be in the public sector. It was in consonance of this policy that it was decided to set up a public sector corporation specially for the development of new mines.

6. These policies have been specified in the Planning Commission's Report on the Second Five Year Plan which states as follows—

“The Industrial Policy Resolution of 1948 laid down that all new undertakings in coal are to be in the public sector except where, in the national interest, the Government wish to secure the co-operation of private enterprise. A few relaxations were allowed in the past in keeping with this policy, but it has been decided that in future the policy of retaining all new undertakings in coal in the public sector should be more strictly followed* and that the additional coal production required to meet the increased demand during the second plan should be raised to the maximum extent possible in the public sector. . . . of the additional production in the public sector, 2 million tons will come from existing working—500,000 tons from existing collieries, principally Bokaro, and 1.5 million tons from Singareni—and 4 million tons are proposed to be obtained by the development of the Korba coalfields. The areas from which the remaining 6 million tons will be obtained have been broadly decided but particulars, including specific allocations for each area, are being determined

To organise production of coal in the public sector, Government have set up an organisation under a Coal Production and Development Commissioner who will be the administrative head of the existing state collieries and the new collieries proposed to be established during the plan period. The control aspect of coal, exercised under the Colliery Control order regarding distribution, price, etc. and the control over private industry has been entrusted to a separate authority, the Coal Controller.

*While the intention thus was that *all* new undertakings in coal would be in the public sector, several instances have come to our notice of private sector having been permitted to open out new mines. In some cases the permission was for opening out new mines in the contiguous areas, and the word “contiguous” is believed to have been interpreted liberally; in others mining companies who held leases of coal bearing areas, were permitted to open out new mines in them on the ground that their mines already under exploitation were nearing exhaustion and that labour and organisation would be rendered idle unless such permission was given.

The existing State collieries are at present administered departmentally but it is proposed to set up a company to own and manage these as well as those collieries which will be established during the period of the Plan".

7. In concrete terms, the immediate task of the N.C.D.C. which came into being in October, 1956 was to take charge of the 11 state collieries and to increase production from them during the Second Plan period from 3 million tons to 3.5 million tons. In addition, new capacity was to be established for producing 10 million tons of coal, both coking and non-coking. The Corporation was specifically asked to set up new units in areas well away from the Raniganj/Jharia region. The concentration of coal production in this region had already strained the transport capacity of the railways, and led to congestion. It was, therefore, considered necessary to set up new capacities well away from that region. After taking into account such geological data as was available, the N.C.D.C. was asked to undertake the development of new mines in the Karanpura fields in Bihar and in the Korba and Jhilimili areas of Madhya Pradesh. The Plan indicated that the new production of 10.5 million tons would come from the following locations—

0.5 million tons from the existing 11 collieries.

0.5 million tons from Kathara.

2.5 million tons—Karanpura area.

3.00 million tons—Korea and Bisanpur areas.

4.00 million tons—Korba area.

It is clear that at the time of specifying these broad targets, neither the Ministry nor the N.C.D.C. nor the Planning Commission had evolved specific projects for reaching these targets.

8. The Corporation's Annual Report for 1957-58, which was published in December, 1958, however, gives a more detailed list of projects which were to be undertaken, with a view to meeting the overall target. This specifies that the 11 state collieries with certain expansion at Bhurkunda and Kurasia, were to give 4.6 million tons and the balance was allocated to other projects as follows—

	Million tons					
Kathara	1.5
Gidi—A	1.5
Saunda	1.2
Bachara	0.6
Gidi-C and Sayal	0.5
Chordara	0.5
Korea and Kotma	1.0
Korba	1.6
Balanda	0.5

9. It would appear that the above indications were based on the work the N.C.D.C. had undertaken in 1957 and 1958, for the formulation of specific project reports, which took into account the quantity of reserves available in individual areas, the methods by which they were to be exploited and the possible achievements from each of these areas.

10. Another list of the Second Plan projects is contained in the details furnished by the Ministry of Mines and Fuel to the Estimates committee in 1962 *i.e.*, after the conclusion of the Second Five Year Plan period. According to the figures given to the Estimates Committee the 11 old collieries with additional development in Bhurkunda and Kurasia, and with certain minor marginal increases in production, had a production target of 5.78 million tons (instead of 3.5 million tons as originally set out and 4.6 million tons as indicated in the Corporation's Annual Report of 1957-58). The other targets were as follows—

					Million tons
Kathara	..	..	..	..	1.50
Gidi-A	..	..	..	..	1.50
Saunda	..	..	..	..	1.20
Bachra	..	..	..	..	0.60
Gidi-C	..	..	..	..	0.41
Sayal	..	..	..	..	0.50
Korea	..	..	..	..	0.24
Korba	..	..	..	..	1.39

11. It would thus appear that there was no firm and settled programme of Second Plan Development, and during the plan period, changes and departures were made in what might have been drawn up as an initial list of projects. Some of these departures would seem to have been caused by the delays and difficulties that arose in actually implementing the sanctioned projects. With the delay in the completion of a 60 mile railway line between Bijuri and Karonji the large Bistrampur project had to be reclassified as a Third Plan Project. Again, the large mining projects in the Korba area could not be relied on to give the targeted production by 1960-61 in view of the time taken in entering into collaboration with the U.S.S.R. and in working out the details of the projects concerned with their assistance. To make up for these shortfalls, the N.C.D.C. deployed the machinery which it had obtained for these projects towards larger production from Kathara, Kurasia and Korea. Special measures were also taken for development in Bhurkunda area where it was found suitable to undertake open-cast mining.

12. It may be interesting to compare the actual production of 1960-61 from various areas and projects with their targeted production. The actual production of 1960-61 was 8.05 million tons; of this, the 11 state collieries accounted for

4.8 million tons, inclusive of the larger production expected from Bhurkunda and Kurasia as a result of their expansion programme. Actual production in other areas was as follows—

					Million tons
Kathara	..	..	..	..	0.79
Gidi-A	..	..	..	..	0.68
Saunda	..	..	..	..	0.61
Bachra	..	..	..	..	0.14
Gidi-C	..	..	..	..	0.15
Sayal	..	..	..	..	0.17
Korea	..	..	..	..	0.07
Korba	..	..	..	..	0.57
Balanda	..	..	..	..	0.07

13. It will appear, therefore, that the bulk of the additional production came from the existing mines and from Kathara, Gidi-A, Saunda and Korba. In almost all cases, the actual production of 1960-61 from new mines was about (or less than) half the targeted production set out in the targets reported to the Estimates Committee in 1962.

14. A large part of the actual production in 1960-61 was concentrated in the last three months of 1960-61. The N.C.D.C's coal production during these three months was of the order of 3.4 million tons. It is clear from the various papers that we have examined, that this increase in production was the result of a special effort which the N.C.D.C. decided to make in order to demonstrate its ability to produce coal at the annual rate of 13.5 million tons. We have already commented in our First Report questioning the prudence of this special effort, and we shall have more to say about it in a subsequent chapter. Here it is necessary to record that while the overall production of the N.C.D.C. reached a level of 8.05 million tons in 1960-61, the resulting accumulation of large pithead stocks at the end of that year compelled the Corporation to reduce its level of production immediately thereafter. The N.C.D.C.'s production for 1961-62 was only 6.05 million tons. If this special effort had not been undertaken, it is unlikely that the 1960-61 production would have exceeded 6.5 million tonnes. We have mentioned this figures to provide a perspective for the progress of production.

15. The programme of production and target for the Third Five Year Plan was formulated after considerable deliberations by various bodies. Years before 1960-61, several committees and groups had considered and discussed the Third Plan target. Without going into details, some of the conclusions reached at various times may be mentioned, as to the likely level of 1965-66 demand. Estimates made during 1957 and 1958 as well as in 1959 varied between 88.5 million tons and 120 million tons. Coal continued to be under distribution control, the supplies of coal being permitted on the basis of recommendations made by various sponsoring authorities nominated by the Central and State Governments. The aggregate of Third Plan demand as given by the various

sponsoring authorities in December 1958 was as high as 120 million tons. The working Group on Fuel put the projection at 110 million tons. A Working Group on Coal production and Transport had placed the 1965-66 demand at 101 million tons in April, 1962, whereas the same group reporting in July 1962 expected the 1965-66 demand to be 97·39 million tons. It may be pertinent to observe that similar estimates of 100 million tonnes or over were also accepted by the Coal Council, which had, amongst its members, persons knowledgeable in the coal industry and representatives of private sector. As finally recommended by the Planning Commission the Third Plan target was 97 million tons, an increase of 37 million tons as compared to the Second Five Year Plan target.

16. In retrospect and as compared to the actual production of 67·7 millions tonnes of 1965-66, it is clear that the target as originally set was very optimistic. It is possible that the framers of these earlier estimates were greatly influenced by the then existing shortage of coal as evidenced by consumer complaints, as also by an optimistic vision of a more rapid expansion in the growth of industries, power and transport. Some of the difficulties like foreign exchange shortage which subsequently arose in the implementation of the industrial and power programmes were possibly not anticipated earlier. The fact remains that against a 37 million tons increase in demand as expected, the actual growth in demand was found not to exceed even 12 million tons. This steep shortfall in expected demand has caused serious difficulties to the coal industry, especially to those units which had undertaken significant investments on expansion programmes and to the N.C.D.C. which had undertaken a particularly large programme of investments.

17. Despite this large shortfall in the achievement of the target, even a production of 67·7 million tonnes during 1965-66 was found to be somewhat on the high side as compared to the actual demand for coal in the country. A broad comparison of the projected demand of individual sectors of consumption with the actual supplies during 1965-66 would indicate that the largest shortfall was in the demand of the Iron and Steel industry which accounted for a shortfall of about 10 million tonnes. The Railways and the Power Plants also similarly accounted for shortfalls of 4 million tonnes each. Thus these three main consumers accounted for a total shortfall of 18 million tonnes. There have been substantial shortfalls also in the demands from other industries particularly, Cement and Textiles.

18. It may be interesting to examine the overall production of coal in each of the years of the Third Five Year Plan. The total production during 1960-61 was 55·67 million tonnes and there was no significant increase during 1961-62. An increase of about 8 million tonnes occurred in 1962-63 bringing the production level to 63·45 million tonnes. In 1963-64 there was a small increase bringing the level of production to 65 million tonnes. In 1964-65 there was actually a drop in production, which looked up again in 1965-66 bringing the final year's actual production to 67·73 million tonnes. It may be interesting to note that even after the Third Five Year Plan, in 1966-67 and 1967-68 there has been no significant increase in the total production of coal.

19. The task of the N.C.D.C. for the Third Plan period and its performance may be considered against this background of the projected and actual demand for coal during the Third Five Year Plan period. Against the Third Plan target of 97 million tons of coal, N.C.D.C.'s target was 30·5 million tons. It was assumed that the production capacity of the mines developed by the N.C.D.C. by 1960-61 was 13·5 million tons. The target for the N.C.D.C. for the Third Plan was to increase this capacity by 17 million tons. In framing the projects to achieve this target, a small addition of 1·5 million tons was provided for, partly as a reserve against possible shortfall, and partly as preparatory work for the Fourth Plan. The overall target for development was 32·00 million tonnes. The Third Five Year Plan explicitly mentioned the projects which the N.C.D.C. was to undertake in order to achieve this capacity. The list included certain coking and blendable coal projects, the Raniganj-Jharia area accounting for approximately 4 million tonnes. For non-coking coal, as before the effort was to be concentrated in the 'outlying' areas of Karanpura and of Madhya Pradesh and Maharashtra. The N.C.D.C. went ahead with the preparation of the project reports for all these projects. While considering these reports, changes were again made in the list of projects and their targets, adhering largely to the targets of coking and non-coking coal production as earlier determined. By the time a mid-term appraisal was made of these various development projects, it became clear that, for various reasons, an overall target of 32·00 million tonnes would not be achieved. A number of projects for which foreign collaboration was expected had been dropped. Certain others for which foreign collaboration was arranged were also expected to take a longer time to achieve results. In other cases, targets had to be varied owing to the actual working conditions being different from what were expected. During the mid-term appraisal of the Plan, the Ministry and the Planning Commission accepted the indication given by the N.C.D.C. that all they could hope to achieve by 1965-66 was the production capacity of 22·86 million tonnes comprised of 7·05 million tonnes of coking coal and 15·81 million tonnes of non-coking coal.

20. While these were the tasks which the N.C.D.C. had proceeded to fulfil during the Third Plan period, as noted earlier there was a considerable change taking place in the demand for coal. From being an article of scarce supply as it was right upto 1962-63, during 1963-64 and subsequent years it was found that the coal industry was able to supply without difficulty all the requirements of coal. Increase in dieselisation and electrification of the railway system had led to a smaller off-take of coal by the Railways, than what was anticipated. The Railway's own target as to the overall traffic that it would be called on to move was found to be on the high side. The power stations which were expected to come into commission lingered and their demand did not therefore go up as scheduled. The steel plants particularly the expansion schemes of Durgapur and Rourkela and the setting up of a new plant at Bokaro, were considerably delayed. There was a similar drop in the industrial targets especially in industries like cement which were large consumers of coal. As a result, after 1962-63 when the production reached 65 million tonnes of coal, the coal industry found itself in a buyers' market. The transport difficulty had eased considerably and the tendency on the part of the consumers to make excess demand for coal had diminished. The situation was worse, specially in respect of the lower qualities of coal. Suppliers had begun to compete by making unauthorised rebates to the

consumers, in the fixed statutory prices. Later, this abundance, of supplies especially in lower grades was recognised by Government and considerable relaxations were made in the methods of distribution control. In June 1962 coal prices for grade II and below had already been notified as ceiling prices, making it possible for the competing mines to lower the prices for these grades. It was not however till July 1967 that the control over prices was entirely withdrawn.

21. This changing picture of the coal market which had come about in 1963-64 had already made the Third Plan target obsolete. At first the Government of India considered that the recession in the coal market in 1963 was possibly of a temporary character. Even in July, 1963, the N.C.D.C. was asked by the Ministry of Mines and Fuel to atleast stick to the revised target of 22.93 million tonnes for the Third Plan.

22. With the continued recession, however, the N.C.D.C. on its own took action in the early part of 1964 to review and to curtail its programme. A special Committee was appointed to examine each project and to consider the extent of development in each case. As a result of this examination, in as many as seven mines located mainly in Madhya Pradesh and Orissa, further development work was suspended. For some other projects the targets of production were revised downwards.

23. It has not been possible to establish clearly as to what the actual achievement of the N.C.D.C. was during the year 1965-66 in terms of its production potential. The indication given to the Committee on Public Undertakings by the N.C.D.C. was that the capacity reached was 15 million tonnes; but the basis on which this figure has been worked out is not clear. An appraisal made in 1964 put the productive capacity at the end of the Third Plan period at 14.32 million tonnes. A recent estimate prepared by the N.C.D.C. shows that the productive capacity during 1968-69 is of the order of 16.97 million tonnes comprised of 7.49 million tonnes from underground mines and 9.48 million tonnes from opencast mines. The estimate of 9.48 million tonnes for opencast mines is based on the assumption that the earth-moving machinery as supplied to them would be kept in running order and be fully utilised on production. The figure of 16.97 million tonnes includes 2.54 million tonnes which would become available in 1968-69 from projects which are still under development. These projects include Chalkari, Surakachar, Sudamdih, Patharkhera, Silewara, Umrer and Jhingurda which when completed, would have a target capacity of 7.76 million tonnes. It would thus appear that the production capacity already developed is about 14.4 million tonnes and that now being developed 7.7 million tonnes, giving for all the underground and opencast mines of the second and the Third Five Year Plan, an aggregate potential capacity of the order of about 22 million tonnes. These figures are given to indicate the achievement of the N.C.D.C. in terms of the productive capacity as compared to the targets which it had undertaken to meet for the Second and Third Five Year Plans. They do not, however, take into account the development at seven mines which was suspended in 1964, and which had a production target of about 6 million tonnes.

24. The financial and commercial results of the N.C.D.C. depend not so much on the target of productive capacity but on actual production. It has been stated earlier that the actual production has been considerably below the targets. The production during 1965-66 was only 9.61 million tonnes. In 1966-67, it dropped to 9.39 million tonnes. In 1967-68, which is the latest year, for which figures have now become available, the production has exceeded 10 million tonnes. That the actual production is considerably less than the productive capacity which the N.C.D.C. sought to develop, provides one of the important reasons for the relatively poor performance of the Corporation in financial terms. What determines actual production is not merely the capacity to produce. The factors which determine production are sales, transport facilities, plant and equipment deployed for opencast operations and the state of their maintenance and in the case of underground mines the way in which the mines have been developed, the reserves available, the conditions of mining and their suitability for the use of mechanised means. The effect of these factors on the actual production as well as the commercial results of the N.C.D.C. would be taken up for consideration in subsequent chapters. Before these matters are considered, it may be appropriate, however, to examine how the N.C.D.C. set about reaching the productive capacity in accordance with the various plan targets.



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CHAPTER II

DEVELOPMENT AND WORKING OF THE STATE COLLIERIES

The first task of the N.C.D.C. was to take over the 11 state owned collieries and raise their production by 0.5 million tons per annum during the Second Plan period. For years preceding this take over, these 11 collieries produced approximately 3 million tons and the production had been almost stationary at this figure. The trend since 1950-51 was, in fact, slightly downwards.

2. These collieries had not been running satisfactorily and as early as 1949 a Special Committee was appointed to look into their performance and to suggest remedial measures. The committee submitted its report to the Government in 1951. It pointed out a number of defects in the working of these mines. Their stores consumption was stated to be high and the supervision in the collieries is adequate. The Committee also observed that a principal cause for the high cost of production was the employment of excessive number of underground workers and surface workers, as compared to the number of coal face workers. The committee recommended transfer or retrenchment of surplus labour. It recommended the introduction of piece-rates and a scheme for incentives to improve production. It also recommended revision of accounting procedure so that the mining engineers were provided with cost-sheets and data within a few days of the end of the period to which they relate. The Committee recommended a number of improvements in the accounts of individual collieries and their consolidation. Finally, the Committee also recommended the establishment of an autonomous statutory body to take over, control and expand the work of these collieries and to run them on a commercial basis.

3. Almost all these collieries were worked manually, and as stated by the Railway Collieries Enquiry Committee, they had excessive complement of workers. Some of the mines were nearing exhaustion and their commercial exploitation was increasingly uneconomic. A glaring case of this type was that of the Giridih mines. The N.C.D.C. came to the conclusion as early as 1959 that the Giridih mines could not be run without incurring huge losses. The coal produced was, however, of high quality coking type and in the interest of conservation of this grade of coal, the Government decided that the mine should continue to run and issued a directive to the Corporation to that effect. The continued running of this mine was also necessary with a view to avoiding distress to the large labour force employed at the mine. Since this directive came into operation, N.C.D.C. have stated that they have incurred a loss of about Rs. 4.27 crores in running this mine. Since 1964, efforts have been made to reduce the losses by retrenching or transferring surplus personnel, finding best possible market for hard coke manufactured at an old coke oven plant, mining of lower grade coal for supplies to power stations. With the good price and off-take that was available during 1966-67 for hard coke, the losses

could be brought down to as low as Rs. 6.23 lakhs for that year. With a slump in the market for hard coke in 1967-68, the mines are believed to have again incurred large financial losses.

4. While the case of Giridih mines has been specially referred to above, similar difficulties are believed to occur in certain other mines as well. The two Orissa mines at Deulbera and Talcher have a small production and have been incurring financial losses year after year. In Kargali which is one of the largest state collieries and which was worked as an opencast quarry, the coal-overburden ratio began to be adverse as mining was undertaken at lower depths. With the deployment of additional machinery, production could be maintained but the cost of production continued to be high and the profitability correspondingly came down.

5. As stated earlier, the task of the N.C.D.C. was to raise the production of these 11 mines by 0.5 million tons per year during the Second Plan. This was achieved in the early years of the Second Plan. Certain expansion measures were, however, undertaken at Bhurkunda and Kurasia. In Kurasia, the target of production was raised from 0.25 million tons to 1.15 million tons by undertaking opencast mining in contiguous area to produce 0.9 million tons. In Bhurkunda, on the other hand, production was to be increased from 0.15 million tons to 1.30 million tons by means of developing additional underground and opencast capacities. Inclusive of these expansion measures which were introduced during the Second Plan period, the target of production for these 11 mines was 5.78 million tonnes. The actual production in 1960-61 was, however, 4.80 million tonnes.

6. The production from these mines has continued to be at this level during the Third Plan and afterwards. The actual production in 1965-66 was 4.4 million tonnes. The production during 1966-67 and 1967-68 was 4.26 and 4.17 million tonnes, respectively. The comparable estimated capacity of these 11 mines now stands at 5.35 million tonnes.

7. While the N.C.D.C. has thus carried out its task in respect of production, the financial results in working these mines have not been adequate. Overall there was a small profit of Rs. 2.92 lakhs during 1965-66 on the working of these mines and in 1966-67 there was a loss of Rs. 33.75 lakhs. Most of the mines with the exception of Kurasia, Bhurkunda and Bokaro are running at a loss. The man-power employed in these mines is large. It accounts for more than half the number of persons employed by the N.C.D.C. in its mines. There is reason to believe that the equipment supplied to them is not being fully utilised, and many items of work which were to have been mechanised are in fact handled manually.

8. Giving reasons for the drop in profits from these 11 collieries, the management of the N.C.D.C. has explained that such a fall in profits despite increase in production would require detailed analysis. However, the management has provided the following *prima facie* reasons for the fall in profitability—

- (i) progressively adverse coal-overburden ratio and progressive exhaustion of the coal reserves in the case of Giridih and Argada;

- (ii) Progressive increase in wages which were not fully off-set by the increases in price of coal;
- (iii) Transport bottleneck resulting in restriction on production;
- (iv) Additional investment since 1st October 1956 of Rs. 17.63 crores comprised of Rs. 10.28 crores on plant and machinery, Rs. 4.32 crores on housing, water supply, roads etc. and Rs. 3.03 crores on other items like land, office and factory buildings, vehicles, railway sidings and development. Although mechanisation was introduced, full advantage could not be taken from it owing to sickness of plant and equipment for want of spares.

9. In considering these matters of production and development of the state collieries, it is also necessary to mention certain changes in methods of working at these collieries made since the take over. The state collieries often resorted to contractual arrangements for certain part of mining work, like loading of wagons, removal of overburden etc. The N.C.D.C., on the other hand, progressively reduced the contract labour and undertook many of these functions departmentally. A part of the increase in production came about not so much by more intensive exploitation of the same areas as by starting new inclines or supplementing the underground projects with new quarries in the neighbouring areas. It is significant that the O.M.S. in these mines has not shown any material improvement since the time they were taken over by the N.C.D.C., except in the opencast mines of Kurasia and Bhurkunda.

10. Having decided to establish a public sector corporation for starting new coal mines, it was only logical that the new corporation be asked to take over the management of the pre-existing state owned mines. These provided a nucleus organisation on which the corporation could build its further structure. A group of coal mining engineers and staff was thus readily available at the disposal of the corporation for its planning and future work.

11. It has to be pointed out, however, that the fact that the corporation was required to build up on the basis of this nucleus, had also its drawbacks. In the first place, coal mining was a small ancilliary activity for the Railways. The profitability of the collieries and its financial working was not a significant factor in the overall railway economy. As pointed out by the Enquiry Committee of 1949, the management of these collieries required a great deal of improvement. There was excessive labour. Being captive collieries of the Railways they had no sales problem. Whatever was produced by the collieries was taken over by the Railways and strict adherence to quality was not essential. Prior to 1955 no consideration was given to ensuring that coking coal was used only for metallurgical purposes. Therefore, the Railways were using up for their own purposes even the coking coal produced in the Giridih, Bokaro and Kargali areas. With the N.C.D.C., the sale of slack has given rise to certain problems as the Railways restrict their purchase to grade I steam coal. The slack produced by the State collieries in the preceding years, was, however, taken by the Railways and utilised either for locomotives or for other purposes. The administrative, financial and stores procedures followed by the Railways were not entirely suitable for running a competitive public sector corporation. The terms and conditions of service of the railway employees included a number

of perquisites like free railway travel. On taking over the staff, the N.C.D.C. had to assure them that the conditions of service were no less favourable than what were enjoyed by their personnel before 1956. As a result, the N.C.D.C. now has on its staff persons with different service conditions, carrying out the same duties. Further, even the senior mining engineers who were taken over by the N.C.D.C. had no particular experience of capital development of new mines. Their main experience was limited to the management of and raising of production from the existing mines. Similarly, the technical personnel did not have much experience in the use of mechanical equipment whether for open-cast or underground mines. Such problems, as arise in ensuring maximum deployment of mechanised plant and machinery by proper maintenance, provision of adequate spare parts etc., were matters in which those who had been running the state collieries had limited experience. In fact, the large scale mechanisation which the N.C.D.C. undertook, in its anxiety to speedily reach the targets was a new venture in the entire coal industry itself. It should not therefore be assumed that taking over of these state collieries was of particular advantage to the N.C.D.C. in its task of rapid development of production from new mines.



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CHAPTER III

PROGRAMMES OF DEVELOPMENT OF NEW COLLIERIES

Raising the production of the State owned mines was only a minor part of the task of the N.C.D.C. Its major concern was to open up new mines in new areas. The Second Five Year Plan required the N.C.D.C. to obtain additional production of about 10 million tonnes by opening new mines. For the Third Five Year Plan, the productive capacity was to be stepped up by another 17 to 18 million tonnes.

2. The development programme for the Second Five Year Plan was spelt out broadly only in terms of the areas to be taken up for development. No specific projects were mentioned for the 10 million tonnes. These areas were specially selected in places away from the main coal bearing areas of Jharia and Raniganj, with a view to avoiding transport difficulties and setting up sources of production nearer the consumption centres. It was agreed as part of the Plan for coal development in these areas that the Railways would undertake the corresponding development by a new railway bridge across the Damodar River intended to serve the Karanpura area, an extension of about 60 miles of the Annappur-Bijuri railway line in Madhya Pradesh towards the Bistrampur area and a railway bridge across Hasdeo river in the Korba region. The works undertaken by the Railways, however, took longer than expected, affecting the N.C.D.C. programmes of development in the connected areas. The N.C.D.C., therefore considered developing a few other projects with a view to meeting its pre-determined target of 10 million tonnes of coal from new projects. Another factor which led to changes in programme even during the Second Five Year Plan, was the state of knowledge of geological conditions in different regions. Initially, the N.C.D.C. relied on the information that was readily available for projecting its new areas of development. The project reports prepared during 1957 and 1958 were based on this information. Later, it was found that the information provided by the geological surveys was inadequate. The N.C.D.C. had itself to undertake some drilling operations in order to supplement the information. The changing position of supply of wagons for the Karanpura areas and the dispute that arose with the Railways in regard to its commitment to supply adequate wagons for this region also affected the production target for the Second Five Year Plan. In view of all these factors, the Second Plan programme was indeed not firm at any one point of time. As stated in an earlier chapter of this report, it is only the overall target figure that was firm but not the detailed programme.

3. The preparatory work was more detailed for the Third Five Year Plan. As early as 1960 the specific locations of the various projects of the Third Five Year Plan were determined. These have, in fact, when incorporated in the Planning Commission's report on the Third Five Year Plan. The selection of these areas was apparently based on the greater knowledge which had then become available to the N.C.D.C. of the coal bearing areas and the reserves of different qualities of coal available in these areas. Despite the large increase in

pithead stocks at the end of 1960-61 awaiting sales and despatch, it was believed that the large programmes undertaken for the Third Five Year Plan were essential to meet the needs of the coal consuming industries. It was not till the middle of 1963 that the realisation came that the demand might not turn out to be as large as projected. The N.C.D.C. naturally took up the task of the fulfilment of its targets in earnest right from the beginning of the Third Five Year Plan. Project reports for the Third Plan projects were prepared in greater detail, setting out generally the method of mining, the civil works programmes, the plant and machinery needed for the project and the number of employees needed to reach targeted production, as well as the expected capital costs and costs of production. In certain cases, where large amount of foreign exchange was needed, it became necessary to obtain assistance from abroad. Such assistance was available from the aid giving countries only on the basis of very detailed surveys and project reports. In particular, the technical collaboration with the USSR and Poland involved very detailed geological surveys of the project areas. The collaborators from these countries insisted that such data should be provided for properly planning those projects.

4. Subject to these factors, the development work progressed apace during the Third Five Year Plan till about the middle of 1963. As mentioned earlier, it was during 1963 that the transport difficulties in the supply of coal tended to ease and it came to be realised that the real demand of coal was less than what was projected. The N.C.D.C. pointed out these marketing difficulties in its Managing Director's monthly reports and in other correspondence, but the Corporation was asked in July, 1963 to go ahead with the development programmes. The sales difficulty, however, continued and in March, 1964 and subsequent months, the programme was reviewed in detail. On a number of projects, development work was suspended. In some projects, the production itself was restricted to what could be sold from those mines. There was redeployment of plant and equipment which had been already ordered for the areas where development work was kept in abeyance. The position at the end of Third Five Year Plan was thus quite different from what it was expected to be when the Third Plan was initiated.

5. After the conclusion of the Third Plan period, the general stagnancy of coal market has continued. N.C.D.C.'s sales were marginally lower in 1966-67 as compared to 1965-66, but they have recovered in 1967-68. The production required for meeting current orders, can be obtained from the mines which have already been developed or are under development, without taking up any new projects. The programme for the Fourth Five Year Plan is yet to be drawn up, but it looks possible that in the non-coking coal sector, it may not be necessary to undertake any new project. The question of reopening of any of the suspended projects would depend on whether coal demand for their production cannot be met by raising output from the nearby mines which are already developed. For coking coal, two deep mines in Central Jharia are now under development. It is still not clear whether any further development work needs to be undertaken by the N.C.D.C. for coking coal in the next few years.

CHAPTER IV

THE QUALITY OF PROJECT PLANNING AND DEVELOPMENT

The Committee has examined the Project Reports which were drawn up and approved for the various projects for the Second Plan. The Project Reports of the Second Plan are sketchy and do not give much indication as to the way in which the work on those projects was to be undertaken. Even as feasibility reports, they lack certain essential details. All these projects whether for the Second or for the Third Plan programmes, make an assumption that the coal produced would be marketed. This as we know it now, was not a valid assumption. No market survey was undertaken by the N.C.D.C. whether for the Second Plan or for the Third Plan projects. The Corporation tacitly accepted the programme as approved by the Planning Commission and the Government. We have already recommended in our first Report that for future at any rate, the N.C.D.C. should make its own analysis of the market for each project.

2. An important point to remember in respect of coal mining development is that for the consumers the price of coal contains a large element on account of transport costs. In planning a project, it is, therefore, essential to determine what would be the economic range for its supply taking into account competition from existing collieries. Such a survey needs to be made not only for its main products but also for its secondary products. It is not enough to consider that steam coal of grade I or selected grade coal can be readily sold to the Railways without difficulty. When steam coal is produced, a certain quantity of slack coal inevitably arises with it and it is important to predetermine the market for this slack and the price at which it can be sold to the consumer. To maintain the colliery in continuous production, not only is it necessary to ensure the despatch of steam coal but simultaneously also of slack. The problem of market is even more important in the case of lower grade coal. Here again it has to be noted that the consumer buys coal for its calorific value. The lower the grade of coal the larger must be the rate of consumption in order to obtain the same calorific value from it. As freight rates whether for high grade coal or lower grade coal are the same, their incidence on the consumers' cost of low grade coal is relatively high. All these factors must necessarily be taken into account in determining whether a project can sell all its products, the prices at which it can sell them, the consumers who would be expected to get their supplies from it and their expectations as to prices and qualities. It is only, when these matters have been considered that one can reasonably assure oneself that the project can be run in an economical manner.

3. Another lacuna that we find in all these Project Reports is the assumption readily made in them that as soon as the plant and equipment, necessary skilled and unskilled labour force, technical supervision and in the case of underground mines certain development works were completed, the mine project would achieve and maintain production at its targeted rate. Even in judging the economics of the project, the calculations are based uniformly on the assumption

of capacity production. In most industrial projects, it is usually assumed that the optimum production would be of the order of 80 to 85 per cent of the capacity claimed for the plant and equipment. That is because the run of production depends on various factors and not all of them can be uniformly favourable at all times. In respect of capital intensive mining, the position is even more uncertain than in capital intensive industry. In order to judge the economics of a project, therefore, it is necessary to determine its break-even point and for its economics of production and profitability it is not proper to assume that all its plant and equipments would work at the targeted rate.

4. We have also found that for most of the projects and more especially those of the Second Five Year Plan, the geological data were inadequate and often not reliable. For a number of projects, the quality of coal as found in actual mining was different from what was expected. One major instance of the quality being different from what was assumed is that of the Kathara Project where the assumption of grade I coking coal was belied and the actual production is considered to be of HH grade unsuitable for use in steel plants without washing. Similar is the case of the coal mining projects in the Korba area. Some of them were at first thought to be capable of producing blendable coal suitable for use in the steel plant at Bhilai. It has now been found that the coal that can be mined from that area varies from grade I at Banki and Surakachar to grade III and below at Manikpur. While Railways have been buying steam coal from Banki and Surakachar, the disposal of slack has presented a problem. Similar position obtains in respect of Umar Colliery which is now under development where, on present assessment, the coal is said to be grade III instead of grade I as earlier assumed. Some of the collieries in Korea-Bisrampur region also presented similar features. In Korea, a quarry was opened in the Second Plan period. After considerable sums of money were spent in the removal of overburden, it was found that the coal, being of lower grade, was not readily saleable and eventually after as much as 67,000 tonnes of coal was exposed and blasted, the quarry was abandoned and the major part of this coal was allowed to be covered by mud and water. Production at the colliery was restricted to underground mining and the discharge of surplus labour presented difficult problems. In certain other mines, again the methods of working were changed and restricted to the seams which, on actual development, were found to be producing the requisite quality of coal. Examples of this are Duman Hill and Churcha. In so many projects of the N.C.D.C. the grade of coal has been found to be inferior to what it was assumed to be on the basis of prospecting and bore hole data. This was the case even in respect of some shallow seams for open cast projects. It would be useful to examine whether this was due to any defects in collections of the data or in its interpretation, so that similar defects are not repeated in future projects or in future expansion and development of existing projects. We recommend that the N.C.D.C. should take up such an investigation as soon as possible.

5. While the data as to the quality of coal was thus inadequate and defective, even more serious was the inadequacy of data relating to the quantity of reserves and the under-ground geological conditions. In a number of instances, the areas were actually found to be heavily disturbed by geological faults. Not only was the overall quantity of reserves found to be less than what had been assumed in

preparing the project, but the methods of working had themselves to be altered in order to suit the actual geological conditions. A glaring example of this is that of Bachra colliery where roof conditions were found to be extremely unfavourable for maintenance of wide galleries essential for mechanised working. In Saunda the reserves were found to be lower as compared to the data available at the time of preparing the project report. Progress of development of inclines at Silewara was delayed owing to beds of running sand; development of underground mines in Bistrampur was delayed due to unexpectedly bad geological conditions.

6. There have thus been numerous deviations from the project reports in their actual implementation. The assumption of the project reports as to the use of mechanised equipment on which the N.C.D.C. specially relied on for getting large production in a relatively short period, could not be fulfilled. The equipment that was ordered was found to be unsuitable for the floor and the roof conditions as actually found in the course of development of the project. One result of this deviation in the working of the project was the reversion, in a number of projects, to the manual methods of working, affecting not only the rate of output but also incurring extra costs in production, besides rendering the equipment ordered for the project under-employed or surplus to its needs.

7. These deviations also meant increased capital costs, delays in the implementation of the projects, and these delays, in turn, meant a larger incidence of overheads and other charges during the development stage adding to the capital costs of the collieries. In a number of cases the capital cost of collieries has exceeded the project cost mainly due to what are known as development costs which include, in large measure, the overhead charges incurred during the course of the project development.

8. The N.C.D.C. relied a great deal on the use of mechanisation for securing target production. Mechanisation was to be introduced in underground mines as well as in open cast quarries. The use of plant and machinery in coal mining was a relatively new feature in 1956, in the coal industry in India. All the requisite machinery had to be imported. There had not been a great deal of experience in this field before. The Corporation therefore relied on such advice as it could get from producers of machinery as well as some of its senior technicians. The plant and machinery that was ordered both for the Second and Third Plan programmes were not directly related to the mining conditions for each project. Bulk purchases were made on the assumption that these would be suitable, if not for one particular project, for some other project. For open cast mines, adequate attention was not paid to standardising the equipment in use. One effect of this non-standardisation is the difficulty that is now found to be acute in the maintenance of a wide variety of plant and machinery which were purchased at different times from different sources. Non-standardisation has also meant holding larger inventories of spare parts.

9. A reference has already been made to the difficulty in using underground mechanised equipment in conditions found in certain collieries and consequent deviations from the project reports which had to be made on a number of projects. In some cases the use of machinery was not consistent with safety conditions. Consequently manual processes had to be undertaken, thereby lowering

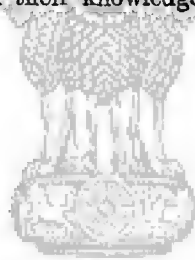
the rate of production, creating problems of surplus labour and unbalancing the economics of the project.

10. The impression that we have of the ways in which the projects were prepared and implemented is one of hurry and haste in undertaking the tasks and trying to complete them as speedily as possible. The pressure for achieving the plan targets, both in financial and production terms was so great that even ordinary caution was at times not exercised. It was optimistically believed that projects could be undertaken, completed and brought into commission without adequate pre-planning. In a large number of cases this haste and hurry did not achieve the purpose aimed at. The completion of the projects was delayed owing to difficulties which could have been foreseen with adequate planning. The costs mounted up and these have also adversely affected the cost of production. In retrospect, it can also be said that the mechanisation and the use of sophisticated plant and equipment was sought to be introduced without adequate preparatory work. It was assumed that the use of this plant and machinery could achieve the expected results in terms of the coal production. For all mechanised works, an important pre-requisite is to provide adequate spare parts and maintenance facilities. Mechanised production also requires that the other conditions namely those of sales, transport, etc. should be suited to be mass production for which mechanised methods give the best results. It is only when the sales and transport are well organised that the fullest possible use is made of the plant and equipment and the best results obtained from them.

11. The lessons that can be learnt from all these difficulties of the past are evident. For effective implementation of a project, adequate preliminary data and project planning is essential. The techniques of project planning have now come increasingly into use in our development projects in this country. We now know that for every project there should be at first a feasibility report which in general terms indicates the economics of the project, market for its product, its essentiality in terms of the national objectives, outline of its main technical process, the facilities available for production in a particular location, etc. The data given in the feasibility report should be adequate for obtaining administrative and financial sanction before the work is started. It is necessary that the feasibility report is followed by detailed project report in which the actual working plan for the project is laid down in details, the costs of various parts of the project and their time-schedules for various stages of completion carefully prepared; measures to bring about timely completion of the project pre-determined and critical points to which attention has to be devoted are specified. The detailed project report should also indicate the phasing of the project, so as to give the best results. Much of these techniques have now become available to the N.C.D.C. through the foreign collaboration made available for some of its projects and also from the work undertaken in the Planning Commission and Bureau of Public Enterprises. In the case of coal mining projects it will also be desirable to consult beforehand the Mines Safety Department and the Coal Board as to the mining methods proposed to be adopted. At first sight these methods may appear to be time-consuming the end, however, most of them if properly employed should lead to speedier results and more efficient and economical performance. In stating this we are not unmindful of the fact that in a matter like mining of an underground commodity

like coal, not all the details can be precisely foreseen. It may be that if full and precise data is to be obtained, the cost of the preparatory work in drilling and obtaining boring data itself may become so disproportionate as to make the project uneconomical. To some extent, therefore, certain risks have to be taken in the case of mining projects. However, there is a great deal of difference between taking these risks and starting projects without even reasonably adequate data. We have been informed that for obtaining adequate preliminary data, it would take something like one year in getting sufficient data for an opencast mine and some two or three years for any deep mining. We consider that the time and money so spent can more than justify themselves by the results.

12. We have stated in our first report that for the next few years, it may not be necessary for the N.C.D.C. to undertake any new mining project except to meet the needs for a specific power or steel project. For some years, now, it should be possible for the Corporation to concentrate its attention on making the existing mines productive and profitable. But in planning new mines, the Corporation should from now on, prepare itself for employing the planning techniques which are now fairly well known and which can show the best results in achieving the object. A number of N.C.D.C. officers have received knowledge and training in these techniques, either by being associated in the projects having foreign collaboration or by specific deputation abroad. It is to be hoped that full use will be made of their knowledge and techniques in the future development programmes.



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CHAPTER V

KATHARA PROJECT

With a view to get a fair idea of problems of development and operations of the N.C.D.C., we examined in some detail the programme of development and the working of the Kathara opencast mine. This was a new mine undertaken by the N.C.D.C. in the early years of the Second Plan. Out of the total target of additional production of 10.5 million tonnes for the Second Plan period, the Kathara project was at first expected to contribute 0.5 million tons. The first project report was for an annual production of 1 million tons. Some two years later *i.e.*, in 1959, the project was revised and its contribution to the target was brought up to 1.5 million tons per annum *i.e.*, one-seventh of the Second Plan target for new mines. This was thus an important project for the Second Plan period.

2. The geological data as available when the project was first planned, showed that large quantities of grade I coal were available at quarriable depths. The more important coal seam was the Kargali seam which had a thickness between 80 ft. and 140 ft. A large part of this seam was known to contain grade I coal. The First Project Report which was prepared in 1957 drew attention to the following features of the Projects.

3. The estimated reserve was 120 million tonnes which at the annual rate of production of 1 million tonnes gave a life of 100 years for the colliery. The mine was expected to be completely mechanised. The total expenditure was estimated at Rs. 2,59,00,000 out of which as much as Rs. 1,36,00,000 was for earth-moving machinery and work-shop (Rs. 1.51 crores inclusive of initial spare parts), Rs. 55 lakhs for buildings, Rs. 18 lakhs for land and Rs. 14 lakhs for railway sidings. The cost of production of coal was estimated at Rs. 11.95 per ton which, with the average selling price of Rs. 17.13 was expected to yield a profit of Rs. 5.18 per ton. The scheme thus presented was attractive. In fact, the work for supplying plant and machinery for the project had already begun even before the project was formally sanctioned on 16th November 1957. Machinery which had been already ordered for the Korba quarry was diverted to this project. The project held out a good prospect of helping the N.C.D.C. to meet its production target of the Second Plan.

4. In 1959, the project was revised and its production target was raised from 1 million tons to 1.5 million tons. The project papers do not indicate the reason for this revision except to say that the decision to increase the production was made in the light of experience gained of working in this area and "considering other relevant factors". We have mentioned elsewhere that the projects of the Second Plan were not altogether firm and it is possible that with a view to making up for the shortfalls elsewhere and thereby fulfilling the Second Plan target, the N.C.D.C. decided to increase production from the Kathara quarry which was relatively easier for development. More geological

details are given in the Project Report prepared in 1959. It has been mentioned that the Kathara block was affected by oblique geological faults and a closer estimate of reserves was made. It was estimated that out of total reserves of over 100 million tonnes, some 36·5 million tonnes were within the quarriable area, i.e., the area in which coal overburden ratio did not exceed 1 : 3. The quality of coal was expected to be grade I except for the bottom part of Kargali seam which was said to be marginally grade I. It was stated that with proper application and blending of the top and bottom sections, it would be possible to market the entire coal as grade I. There is also a reference in the report to the possibility of a washery being established at Kathara to serve the requirements of the Bokaro Steel Plant. The report states "if contrary to expectation the Kargali seam coal cannot be marketed as grade I after picking and blending, the washery which is proposed to be installed at Kathara would enable the coal to be despatched to the steel plant or to the Railways after improving the quality of coal by washing". The quotation seems to indicate a lurking doubt as to quality. As in other cases, there is no detailed examination of the market for this coal. Although reference to the possibility of marketing the coal after washing has been made, economics of washing costs and the saleability of the coal with this extra cost has not been considered. As in the case of the other Second Plan Projects, it was assumed that whatever was produced would be sold. The revised Project Report gave an estimated cost of Rs. 5 crores which included Rs. 2·59 crores for machinery and Rs. 1·14 crores for buildings, Rs. 25 lakhs for land and Rs. 40 lakhs for railway siding. The estimate of Rs. 5 crores was inclusive of Rs. 2·59 crores estimated in the First Project Report for 1 million tonnes production. It was also expected that the project would be completed in time to produce 1·5 million tonnes in 1960-61. The revised cost of production was estimated at Rs. 16 per tonne whereas the expected sales price was Rs. 19·69 per tonne. This gave a smaller profit as compared to that mentioned in the First Project Report. However, the figures are not strictly comparable as both the selling prices and wages had undergone a revision during this period. The main object of the project was to achieve the target of production of coal and the fact that it would be done with a profit margin of Rs. 3 per tonne would have been sufficient to get necessary sanction for the project.

5. Even before the project had reached the production level of one million tons, the third revision in the project was made in 1962 when, in expectation of the setting up of a washery at Kathara, the project was further revised to enable it to yield 3 million tonnes of coal per annum as input for the Kathara Washery. It would seem that the capacity of the washery was determined by the needs of washed coal for the steel plants. Kathara coal was coking coal suitable for washery input, but its production was expected to be only 1·5 million tonnes. In addition to this, production of another 1·5 million tonnes was expected to be developed in a deep shaft mine in the neighbouring area. However, the deep shaft mine was not expected to come into full production for over 12 to 13 years or till 1975. It was, therefore, proposed that Kathara should itself increase its production by 1·5 million tonnes per annum for a period of 10 years, i.e., from the time the Kathara washery was expected to come into commission in 1965 to the time that it could find its additional supplies from the deep shaft mine. After considering the coal reserves available

in Kathara and the need to step up production for a period of 10 years from April, 1965 to March 1975, it was estimated that the extended Kathara quarry would have a life of 25 years. To reach this higher production, it was proposed to obtain shovels and dumpers of higher capacity. The total additional cost was Rs. 3.89 crores of which plant and equipment accounted for Rs. 3.44 crores and buildings, residential or otherwise, Rs. 35 lakhs. The cost of production was now estimated at Rs. 17.70 per tonne and the profit margin at Rs. 2.21 per tonne. This profit margin was less than what was expected in the first and second project Reports. Nevertheless, the object was to meet the needs of the washery in as short a time as possible and having regard to this factor it was not surprising that the project received approval and was taken up.

6. Thus the total cost of the project as estimated in these three stages was Rs. 8.90 crores. The actual expenditure till the end of 1966-67 is stated to be Rs. 6.23 crores. The expenditure on most of the heads of development roughly corresponds to estimates, except that, on plant and equipment it is Rs. 1.98 crores less than that shown under the head "plant and equipment" in the third project estimate and for buildings it is Rs. 66 lakhs less than the estimate for buildings. The estimate that the Kathara washery would come into commission in 1965-66 was found to be over-optimistic. This washery construction was undertaken with the collaboration of the U.S.S.R. Government. Even the contracts for the supply of machinery and technical collaboration were not made till September, 1963. Working drawings as required for indigenous equipment as well as civil construction work were received from 1963 to April, 1965. The construction and erection work are still proceeding and the present estimate is that the construction of washery will be completed by the end of 1968. It is possible that it would not reach capacity production till the latter half of 1969-70. Assuming that marketing problems for the products of Kathara washery are satisfactorily resolved, it would be necessary for the Kathara colliery to push up its production to the level of 3 million tonnes in another year or 18 months.

7. Currently, the Kathara quarry has a serious problem of marketing its coal. Contrary to the expectation based on the geological data, the coal as quarried is found to have certain admixtures and is not better than grade II. The working of the quarry has been restricted to a part of the top Karagali seam with a view to maintaining the production quality as grade II. There is difficulty in the sale of this coal. At one time in 1964, the Railways who are the main customers for this coal complained of large admixture and stopped supplying wagons to this colliery and the production could not be moved out for want of sales. It was only after a rebate in price and some special arrangements made for picking and blending of coal through a loading contractor that the Railways could be persuaded to accept Kathara grade II coal for their use. Even then there was the difficulty in the disposal of slack. Bokaro Thermal Station which is within two miles of the Kathara colliery, was buying its requirements by open tenders. Bokaro Thermal Station did not, however, purchase this coal direct from the N.C.D.C., as the quotation tendered by the N.C.D.C. was found to be higher than that of the lowest tenderer. However, the contractor supplying the coal to the Bokaro Thermal Station agreed to purchase part of the slack produced at Kathara at the N.C.D.C. price and make

it available to the Bokaro Thermal Station at his quoted price, presumably by compensating himself of supplies made from other sources. Even so, large production of slack at Kathara continues to be a problem for sales from Kathara. During the last few months, some sales have been made to the thermal station at Patratu, but the Railways, have found it inconvenient to transport coal from Kathara to Patratu. Even with these sales and the continued restricted scale of production, pit-head stocks at the end of March, 1968 were as high as 2,25,000 tonnes, i.e., an average of four months' production. Thus, one major problem of the Kathara colliery is that of finding market for its production.

8. The production at the mine has, therefore, to be considerably restricted. It has never reached even the target of 1 million tonnes shown in the first project Report. Production has varied between 500,000 tonnes and 700,000 tonnes per annum since 1961-62. The only time that it is believed to have reached the production rate of 1 million tonnes per annum was in March, 1961 when its production was 1 lakh tonnes. This was the time when the N.C.D.C. had decided to go all out for stepping up production irrespective of sales and irrespective of availability of transport. Even so, there is reason to believe that the actual production during the quarter ending March, 1961 in Kathara colliery was overstated when the local project officers counted each dumper trip at 11.5 tonnes instead of 9.14 tonnes. Therefore, some part of the recorded production of 1 lakh of tonnes in the month of March, 1961 may well have been fictitious.

9. Besides the limiting factor of marketing and transport, Kathara is a glaring example of a large volume of earth-moving machinery remaining out of commission for want of repairs and spare parts for long periods. The Project Report required the provision of shovels with the aggregate capacity of 79½ cu. yds. Against this shovels with total capacity of 90 cu. yds. were purchased and the deployment on 31st January 1967 was shovels with total capacity of 81 cu. yds. the balance being diverted to other collieries. The actual number of shovels provided is 13 as against 15 required for the full target. Of these 9 shovels are now working on overburden removal of about 140,000 cu. yds. and 4 on coal production of about 50,000 tonnes per month. The dumper capacity required was estimated at 2,241 cu. yds. whereas 1,482 cu. yds. were purchased. The deployment on 31st January 1967 was 2,244 cu. yds. This was made possible by diversion of dumpers from other mines. Out of a total number of 85 dumpers so provided, only 29 were serviceable in March, 1967 and the position further deteriorated in subsequent months. By October, 1967 only about 20 dumpers were fit for working. Shortage in dumper capacity has also led to idling in the capacity of the shovels. Large scale sickness of earth-moving machinery, more especially of dumpers, presents a very serious problem to this colliery. The current picture is, however, that for the production that can be sold and transported from this colliery, namely 5 to 7½ lakhs tonnes of coal per annum, shovels and dumpers presently at work are slightly more than what are required. If the colliery is to step up its production to reach its original target which it may have to do when the washery comes into commission, it is essential that all the machinery which has remained idle for want of repairs is reconditioned and put back into service.

10. The restricted production and sales have affected one other aspect of its production. Normally, when open quarries are worked, the first lot of overburden removal is followed by the complete extraction of exposed coal, so that the further overburden removed can then be back-filled into areas from which the coal is removed. Such a method gives greater economy in production inasmuch as the overburden does not have to be taken over long distances, and over steep gradients, for being dumped. The working of the seam at Kathara having been restricted to the top 20 ft. the facility of back-filling is not presently available. Therefore, overburden is now being carried over long distances and steep gradients. This could be one reason for a large sickness of dumpers. In the absence of the back-filling method, the cost of removal of overburden is also high.

11. The second consequence of the restricted production is that the colliery is now engaged in deploying its machines more on the overburden removal. It is understood that it has removed about 14 million cu. yds. of overburden since its inception and in the process about 8 million tonnes of coal has been exposed. Out of this, 4.5 million tonnes have been despatched and 3.5 million tonnes are lying exposed. Removal of overburden considerably in advance of the removal of coal adds to the working cost of the quarry. In an ideal situation only so much overburden should be removed as is necessary for the extraction of coal during a given period, so as to minimise if not to eliminate any large balance of deferred revenue expenditure for absorption in coal production costs in subsequent years. As the balance of deferred revenue expenditure locks up working capital and bears interest charges, ideally, there should be no balance in the deferred revenue expenditure account at the end of the financial year. Apart from this, there is also the possibility that the large quantity of exposed coal may attract dirt and impurities especially during the rainy season and require another operation for its removal before the coal is extracted.

12. There have been instances of considerable delay in taking action for the repairs and maintenance of the machinery. The following are some of the details—

- (i) 15 No. 11/LD Euclid dumpers were lying idle at Kathara from various dates since September, 1965 to October, 1966 for want of tyres. Tyres fitted to these dumpers were of non-conventional type i.e. tubeless for which there were no facilities in the country for repairs or vulcanisation. It is noticed that when these dumpers were purchased, the DGS&D who made the purchase, brought it to the notice of the N.C.D.C. that dumpers with tubeless tyres might not be accepted, unless the N.C.D.C. were equipped to handle cuts or other similar repairs and/or to vulcanise tubeless tyres. In reply to these observations, the N.C.D.C. replied that "we shall make necessary arrangements for repair and vulcanising of these tyres in our workshops." Apparently, no action was taken after this reply in 1964 to make these necessary arrangements. It was only in 1966 that a private firm was located in Calcutta which could, with some additional facilities, equip itself for undertaking repairs and retreading of tubeless tyres. The firm was given foreign exchange

in 1966 on the recommendation of the N.C.D.C. for the import of accessories for repairs of these tyres. Since 1965, the N.C.D.C. had been asking for release for free foreign exchange for the repairs and maintenance including the import of tubeless tyres for the dumpers. It was not till 1966-67 that an amount of free foreign exchange of Rs. 4.85 lakhs could be allotted for the import of 39 tubeless tyres. Moreover during 1963-64 to 1966-67 free foreign exchange to the extent of Rs. 1.94 crores was made available to N.C.D.C. for spares, accessories and maintenance. When it is known that large size tyres for the earthmoving machinery whether tubeless or with tubes were not repairable in the country, care might have been taken to make use of some part of the free foreign exchange for import of accessories needed for repairs. The latest information is that by April, 1968, 10 out of 15 dumpers have been commissioned after the retreading of the tyres. It was hoped that the remaining 5 will also be put back into service soon.

- (ii) Out of the 12 Euclid BITD 14/16 cu. yds. dumpers, three have been under break-down from different dates since September, 1961 for want of replacement of engines. Orders for the engines for these dumpers which broke down in September, 1961 and February and August, 1963 were not placed before February, 1965.
- (iii) Out of 21 Haul-Pack 22 cu. yds. dumpers, 11 are under break-down for want of engine parts. Action for procurement of spare parts was taken only in March, 1964, although 3 of these dumpers had been commissioned in November, 1961, one in August, 1962 and others in 1963.
- (iv) Out of the 20 Nos. LVX MACK dumpers, 14 are under breakdown from different dates since February, 1963 for want of engine and spare parts. The procurement of spare parts was undertaken only in December, 1964 even though 3 of the dumpers broke down in February, March and June, 1963.
- (v) In addition, there is the case of 16 coal haulers allotted to Kathara. Of these 13 are under break-down and the remaining 3 are being used as water tankers and not as coal haulers. These 13 coal haulers have been under break-down since May, 1960. These coal haulers were amongst the purchases which were made without fully realising that such machines were not suitable for use in the working conditions in India.

13. These details would show that there has not been adequate attention given to the need for maintaining the machines in order. Mechanisation can succeed only to the extent to which attention is given for ensuring that the machinery that is obtained is suitable for use, that it is utilised under the best possible conditions, (for example by providing the requisite standards of haulage conditions) and the adequacy of maintenance personnel and the regular supply of spare parts. The arrangements for maintenance and spare parts must be made at the time of the purchase of machinery. That is particularly so in respect of imported machinery for which supply of spare parts is not readily forthcoming from stocks in India. Foreign exchange scarcity has been stated to be the reason for inadequate supply of spare parts. However, the foreign

exchange scarcity in more acute form caused these difficulties only after 1964. It will be noticed that for some of the machines which broke down even earlier, no timely arrangements had been made for purchase and supply of spare parts.

14. It is possible that the supply of machinery for the target production and in excess of the needs of the current production may have made the officials somewhat complacent in regard to taking prompt action for repairs and maintenance of the vehicles under breakdown. In retrospect, it is possible to say that while purchases were made to provide for targeted production, the Corporation would have been well advised to release to the project only so much equipment as was needed to maintain production at the current level.

15. One other feature of the Kathara Project needs to be mentioned. In its first Project Report it was expected that a coal handling plant would be set up for the loading of wagons. Pending the construction of a more permanent arrangement, some temporary plants were provided in 1957 and 1959. However, by 1962 it became clear that a permanent coal loading plant may not be needed as the output of Kathara was intended to be transported to the nearby washery which again was then expected to come into commission in April, 1965. All these time projections, however, were unduly optimistic. In 1964, Railways objected to taking coal from Kathara and reduced the supply of wagons practically to nil during certain months. Their complaint was that the quality of coal was unsuitable for use in locomotives. After considering this matter, the N.C.D.C. decided to entrust the loading arrangement to a contractor who was required to ensure proper picking and grading of coal before loading. In the absence of the permanent coal handling plant, departmental picking and selection could not be undertaken. The contractor was liable for any deductions in payment made by consumers on account of the size or quality not being upto mark. Further, he was also liable for any demurrage etc., except when the detention of wagons was caused by major breakdown in machinery or unforeseen causes like strike, power break-down etc. The cost of loading with the help of contractor is as much as Rs. 2.51 per tonne whereas departmental handling with a permanent loading plant would not have cost more than 65 paise per tonne. The difference is large enough to reach the conclusion that even if a permanent coal handling plant at the cost of Rs. 24 lakhs had been installed, as indicated in the first Project Report, the capital cost would have been more than recouped from the savings that might have occurred on the present method of loading coal with the help of contractor. Undue optimism in regard to the schedule of completion of washery must be regarded as a possible reason why such a course was not adopted.

16. The case of Kathara Project illustrates many of the features which are found in a number of other N.C.D.C. collieries. Firstly, the difference between the geological data on which the project is based and the actual strata as found working conditions has considerably affected the sales and production from the project. Secondly, the project was developed without sufficient regard to the availability of market for the grade of coal expected to be produced—both steam and slack—and the transport facilities that were available. Subsequent experience in respect of the restriction imposed on production by the factors of sales and transport has led to the adoption of working methods which did not provide for the best use of the men and machinery deployed on the project.

Thirdly, maintenance arrangements for mechanised mines need considerably greater attention. There are indications that apart from the restrictions caused by foreign exchange difficulties and the non-availability of spare parts, the attention given to repairs and maintenance of the machinery in use, was neither prompt nor adequate.

17. Despite the production being considerably below the target, Kathara project has been showing profits in most years except in 1964-65 when there was a loss because of less production. In 1966-67 again it suffered a small loss. In other years it has been making profits. But being a mechanised mine the profits would have been better if the marketing conditions were favourable, transport facilities readily available and if the equipment had been used to better advantage. Even with the present man-power and the production, the output per man-shift as reported by N.C.D.C. varies between 1·2 and 3·0 which is above the average for the industry and for the N.C.D.C., but for a mechanised opencast mine of this type, it should not be difficult to attain a much higher output per man-shift, as envisaged in the project report, viz., 4·84. The O.M.S. has more over declined from 3·0 in 1965-66 to 2·00 in 1967-68.

18. It is likely that the problems of marketing of the Kathara coal will not have been solved by the establishment of the washery. In actual working, Kathara coal is now found to be of grade inferior to what it was assumed to be in drawing up the three project reports. Consequently, the proportion of washed coal to other by-products is likely to be smaller. Moreover, the capital cost of Kathara washery itself has gone up owing to devaluation and larger import duties on imported equipment. Against an original estimate of Rs. 8 crores, the latest estimate of the capital cost of Kathara washery is Rs. 12 crores. Cost of washing coal is therefore likely to be much higher than the project estimate of Rs. 11·13 per tonne of washed coal. Washed coal from Kathara is to be supplied to Rourkela and Bhilai Steel Plants. The quantity that these two steel plants would take will depend necessarily on the progress of expansion of steel production of these two plants. Owing to the high washing costs at Kathara and the continued availability of raw cooking coal from certain private collieries, there may be difficult negotiations ahead with the steel plants on the price to be paid for the washed coal from Kathara. Large part of the middlings from Kathara washery are expected to be taken by the power house at Patratu. The Railways have all along shown great unwillingness in transporting Kathara coal to Patratu. However, in recent months, the Railways have been persuaded to provide the transport facilities from Kathara to Pataratu. The marketing of middlings from Kathara depends on the continuance of these facilities. Markets have yet to be found from the remaining part of the middlings. Owing to the quality of raw coal being inferior, it is likely that the quantity of middlings to be marketed will be greater than what has been hitherto assumed. There is as yet no definite linking as to the market for the middlings.

19. If Kathara colliery is to produce at its optimum level it is necessary that the N.C.D.C. should now devote its attention, well in advance of the completion of the washery, to the marketing problems referred to above. Unless these are satisfactorily solved, not only the working of the washery but also the working of the Kathara colliery will continue to be considerably below its targeted levels.

CHAPTER VI

MECHANISATION AND PURCHASE OF EQUIPMENT

The 11 State Collieries which were taken over by the National Coal Development Corporation on its inauguration were in large part worked manually. The total equipment which was taken over at the time from these State Collieries is valued at Rs. 2.44 crores. The details of the valuation are not available. But the equipment includes the power plant, the coke oven (at Giridih), electric pumps and other equipments and plant including vehicles. Heavy earthmoving machinery was not operated by the Corporation at the two State Collieries of Kargali and Bokaro which were open-cast mines. The work of the overburden removal at these two quarries was entrusted to contractors. The coal cutting at the underground mines was mostly manual.

2. The task of the Corporation during the Second Five Year Plan was to raise the production from the new mines by 10 million tonnes. Broadly, it was expected that 4.2 million tonnes will come from underground mines and the balance from opencast quarries.

3. Even though Project Reports were not ready, the senior technicians of the Corporation were relied on to prepare equipment lists, based on their general knowledge of the seam gradients likely to be encountered in the proposed mines. They prepared lists of conventional equipment required for underground mines and a considerable quantity of such equipment was ordered during the years 1957 and 1958. Early in 1958 a team of senior engineers of the N.C.D.C. visited the United States of America to study the working of trackless mining equipment. On their return, their recommendations were discussed in detail amongst the senior technical officers of the Corporation and certain number of items of machinery, which, it was thought, would be suitable for Indian conditions, was ordered in 1958. Similarly large quantity of conventional open-cast mining equipment had also been ordered during 1957 and 1958 when the project reports were still under-preparation. The value of these orders was approximately Rs. 12.6 crores. A part of this equipment was received in 1959 and put to use.

4. Early in 1959, a further review of the equipment needs of the N.C.D.C. was made. The approach adopted this time was somewhat different. A standard list was drawn up by the Planning Section of the N.C.D.C. for the equipment required for an underground incline with an output of .25 million tonnes per annum and it was proposed that equipment for 22 standard inclines be ordered. In preparing this list and forwarding it to the Government for its approval, the N.C.D.C. stated that the earlier lists had been drawn up rather hurriedly and without consulting the field officers. A further review had, therefore, been made and the revised lists prepared for the consideration of a Committee of Senior Technical Officers. The lists took into account orders already placed and the balance to be ordered. A similar list was also prepared for opencast

mining machinery required for the developmental projects which were undertaken during the Second Five Year Plan. The open-cast mining equipment which had earlier been obtained from the U.S.A. including Army disposal and some purchased second hand from completed irrigation projects had been taken into account in preparing this new indent. The lists were approved by the Board of Directors on 13th May 1959 and the Government sanction was thereafter asked for.

5. The Ministry raised some doubts as to the propriety of working out the equipment needs of the projects in this way i.e., without the prior preparation of the project reports. They thought that while such master lists were useful as a rough and ready basis for checking up the detailed requirements, they could not serve as a firm pattern for purchase action. In his reply to this letter, the M.D., N.C.D.C. stated that most of the project reports had already been approved and as for others there was sufficient indication already as to the precise needs of the plant and machinery. He also urged that if the projects were to proceed as required by the scheduled dates, all the machinery as listed should be purchased and made available by June 1960; this was only possible if advance action was taken for the purchase.

6. We have quoted this correspondence at some length indicating why a departure was made from the usual practice whereby a detailed project report is prepared before the lists of equipment are drawn up for the necessary purchase action. The detailed project report is expected to give a description of the proposed methods of working, the geological conditions, reserves available and the optimum rate of working those reserves the requirements of machinery can be correctly assessed and drawn up only after taking into account all these factors. On the other hand, considering the time factor involved, the fact that large part of machinery had to be imported from abroad and would have therefore taken a much longer period of time to procure and be brought to the site, the N.C.D.C., thought it necessary to act the way it did if it was to meet the target of production by the prescribed dates. A further point supporting this argument is that certain types of mining equipment manufactured by well known machinery makers are in great part standardised, and even the project officers in working of the projects have necessarily to take into account the standard equipment that is normally available. However, prior preparation of the project reports would have given a better selection to meet particular needs. In specific cases manufacturers would not have been averse to make some minor modifications.

7. In the end, the procurement during the Second Plan was somewhat short of the quantities indicated in the standard list. But as only 17 inelines were undertaken for development, their needs could be met from these purchases.

8. The Third Five Year Plan of the N.C.D.C. comprised of opening out underground mines at 13 locations and to undertake opencast quarries in 8 other places. Out of these, the coal mines at Banki and Surakaohar and opencast quarry of Manikpur were to be undertaken with the U.S.S.R. collaboration and the underground mine at Sudamdih was to be taken up with Polish collaboration. For these mines detailed project reports were drawn up. The agreements made with these countries required that the equipment for the mines

was to be purchased from those countries and the precise purchases were to be determined on the basis of project reports prepared by the foreign collaborators.

9. In regard to other projects, for six mines orders were made before the project reports were ready. It was stated that the equipment so ordered was of type that would have eventually to be used and provided for in the project reports. Similarly for opencast mines, shovels and dumpers combination was proposed where the seams were thick and had steep gradients. Draglines were suggested for certain projects where they would prove to be cheaper. The requirements were worked out after taking into account the fact that in Indian conditions the output of the equipment would be somewhat lower than that obtained in the foreign countries. In large part, all this equipment was however, purchased while the project reports were still under consideration. In other words, as in the case of the Second Plan projects, the N.C.D.C. wished to speed up the ordering of equipment even in advance of project preparation, with a view to be in a position to achieve the targets of production.

10. The present position of the major items of underground equipment as compared to the provision in the project report in projects which do not involve foreign collaboration is given in the statement at Annexure I. A similar statement is also prepared in regard to opencast machinery and is given in Annexure II.

11. It would be noticed from the above two statements that in the aggregate the actual availability of equipments for the projects is less than what was indicated in the project reports. Even if we take into account the fact that at certain mines work has been suspended, the equipment as actually purchased is not in the aggregate more than what was needed for the target production from the mines where work has not been suspended, except in respect of draglines. There has been some re-deployment of machinery consequent on the suspension of development and production of certain projects. Machinery and equipment meant for these projects were diverted to other projects under development. There are indeed some two or three cases where equipment as now supplied is much more than what was shown to be required in the project report. But for a large number of mines, the equipment is not adequate to meet the target production from those projects.

12. The above comparison is made on the basis of target production as expected in the project reports. However, we have seen that the actual production in all these mines is far below the target. The actual production in 1966-67 was 3.26 million tonnes or 39 per cent of the production target of the 14 underground mines mentioned in Annexure I. For the opencast mines, the production is only 5.17 million tonnes as against target of 20.73 million tonnes or 25 per cent. Therefore, for the actual level of production, the machinery and equipment is considerably in excess. One would not, of course, expect that the equipment needs of the project for actual production would bear the same proportion to the projected targeted requirements as the actual production with the target. To consider what the needs of the projects are for the production expected from them, it would be necessary to undertake a very detailed survey of the working conditions and the production potential of each mine and the kind of equipment

that is available for use. A large part of the equipment especially the earthmoving machinery at the opencast mines has been rendered unserviceable owing to indifferent maintenance, and non-availability of spare parts or surplus owing to unsuitable conditions. Therefore, it is not as if the equipment as indicated in the Annexure can actually be put to use in the respective projects. Considering the present state of the equipment, it is not possible to say that there is any large surpluses available for disposal at any of these mines.

13. Indeed, performance of the equipment has in many cases been found to be of a much lower standard than what was expected in the project reports. When these projects were prepared and equipment selected, mechanisation was in its infancy in the Indian coal mines and there was not sufficient experience in running mechanised mines. Considerable reliance was therefore placed on the performance of such equipment in countries of their origin and to some extent on the performance figure as given by the manufacturer. In actual practice it was found for various reasons such as unfavourable geological conditions, shortage of trained personnel and non-availability of essential spare parts which had all to be imported, that the performance of the equipment was considerably low. Even so, we have reason to believe that the performance of some of these machines could be improved a great deal, if attention was given to the improvement of working conditions and maintenance. For this purpose, each project officer should be encouraged and required to study the working of the machines, its potential and to consider measures which would help in getting maximum possible output from it both in terms of time for which machines are employed and the output that can be secured from them.

14. We have come across cases where machines have been purchased even though it did not require a great deal of knowledge to appreciate that they could not be used in the conditions of mining obtaining in the country. We have obtained from the management of N.C.D.C. a list of machines which have been purchased and which cannot be utilised. The list includes many items; the amount spent on these machines is in the neighbourhood of Rs. 80 lakhs. It is interesting to know that the purchase of machines was approved by several senior mining and excavation engineers at the headquarters of the N.C.D.C. The speed in development required advance action in purchase; but the speed does not necessarily mean that purchases should be made and expenditure incurred without due caution. Such caution is not in evidence in making these purchases. A further point in regard to these purchases is that although these machines have now been found to be unusable, the attempts made for their disposal have been tardy and inadequate.

15. Given the target of production and the tasks which the N.C.D.C. took upon itself, it did not have much option in the matter of mechanisation. It is only by the use of machinery that high rate of coal production could be achieved in new areas within a relatively short time. Having decided on mechanisation however, the N.C.D.C. should have undertaken all those preparatory arrangements that were needed to ensure the fullest possible value from the machines and equipment purchased at high costs. Considering the lack of expert knowledge in this country on mechanised mining, it would have been an advantage to get a few technical experts from abroad to assist in ensuring the

fullest possible use of the machinery. The lack of spare parts was indeed the one single reason repeated at almost all the coal mines that we visited. It has been responsible for the inadequate performance of the machines. Most of these spare parts are imported and with the difficulty that arose in providing adequate foreign exchange for these supplies from 1963 onwards, a large number of machines have remained out of use. We have not been able to obtain the information as to whether such foreign exchange as was released was fully utilised. The position is particularly depressing in the case of dumpers. In specific instances, the dumpers could have been put to better use with less chance of breakdown, if the haulage roads were more suitable and arrangements for dumping of overburden were different from what they are in the projects. The foreign exchange availability having improved in the last two years, it should now be possible for the N.C.D.C. to ensure larger supplies of spare parts. With these and with the workshop capacity which the N.C.D.C. itself has built up, and which requires to be properly and fully operated, it should be possible to put back to work a large number of machines which are now awaiting overhaul and repairs and to get the best out of these machines. It is not possible for the Committee to examine the matter in greater detail. We suggest that a small group of competent engineers should examine the problem at each colliery, determine the quantity of equipment which can be fully utilised at each colliery and to make efforts to ensure that maintenance/repairs are undertaken quickly and completed promptly.

16. Most of equipment in use is imported. It is only in the last few years that indigenous capacity is being developed at the public sector unit at Durgapure and in other factories, where requisite equipment both for quarries and underground mines can be produced. The progress however, is extremely slow. We recommend that sustained efforts should be made from now on to develop indigenous supplies and to reduce dependence on imported equipment and spare parts as early as possible.

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ANNEXURE I TO CHAPTER VI
Statement showing Deployment of underground Mining Equipment in N.C.D.C. Collieries

Name of mine	Availability of some major items of equipment													
	Production (m. tonnes)													
	Target Actual 1966-67		Coal Cutters			Loaders			Scraper chain conveyors			Belt conveyors		
			As per PR	As on 31-7-67	As per PR	As on 31-7-67	As per PR	As on 31-7-67	As per PR	As on 31-7-67	As per PR	As on 31-7-67	As per PR	As on 31-7-67
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Bhurkunda		0.50	0.43	8	19	4	..	18	14	5	8	3	..	15
2. Saunda	..	0.80	0.29	32	20	16	..	96	24	16	14	..	..	..*
3. Gidi 'A'	..	0.70	0.37	18	28	12	..	56	66	12	18	..	..	..
4. Sayal	..	0.50	0.43	24	23	12	4	72	33	16	24	4	..	12
5. Bachara	..	0.60	0.22	20	7	10	..	40	24	6	9	..	..	..
6. Korba	..	0.60	0.23	10	6	5	..	15	14	9	12	..	..	..
7. Kurasia	..	0.35	0.27	4	8	2	1	12	1	3	3	..	..	7†
8. Korea	..	0.35	0.28	6	5	3	5	..	6	1	1	6	3	5
9. Barampur	..	1.00	0.10	12	3	10	..	4	6	4	1	22	..	6
10. Churcha	..	0.60	0.16	9	4	7	6	5	2	21	6	7	6	..
11. Jamuna	..	0.69	0.13	30	4	2	..	46	2	18	1	2	..	2
12. Duman Hill	..	0.71	0.13	22	4	11	4	12	12	13	4	10	3	..
13. Chalkari	..	0.50	0.22	7	3	..	..	6	2	4	3	4	4	..
14. Patherkhara	..	0.45	..	7	4	7	1	4	5	12	3	7	..	..
Total	..	8.35	3.26	209	138	101	22	386	211	140	107	72	16	23
			39%		66%		22%		55%		76%		22%	61%

*The P. R. provision is for the new mine (0.25 m.t.) only

†P. R. provision is for new incline (about 0.25 m.t.) only.

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ANNEXURE II
Statement showing Deployment of heavy Earth-Moving

Name of Project	Production (m. tonnes)		Availability of Draglines				Shovels			
	As per Project Report	Actual 1966-67	As per P.R.		As on 31-1-67		As per P.R.		As on 31-1-67	
			As per Nos.	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Capacity
1	2	3	4	5	6	7	8	9	10	11
								C. Yds.		C. Yds.
1. Bokaro	1.50	1.01	..	..	..	..	5	26.0	4	20.5
2. Kargali	..	0.53	..	..	..	..	5	20.5	4	16.0
3. Kurasia	0.80	0.408	1	15	2	23	7*	14.5	7&	16.0
4. Korba Pilot	0.30	0.38	..	..	..	..	2	7.0	3	9.5
5. Gidi 'A'	1.00	0.42	..	..	..	..	6	22.5	4	21
6. Gidi 'C'	0.40	0.25	..	..	..	..	3	7.5	4	17
7. Saunda	0.40	0.15	..	..	..	..	3	7.5	3	10
8. Bhurkunda	0.80	0.42	..	..	..	..	5	16.5	6	22.5
9. Kathara	3.00	0.55	..	..	..	..	15	79.5	13	81
10. S. Balanda	1.00	0.30	2	23	2	23	4	13.5	4	17.0
11. Bisanpur	1.70	0.49	2	67	2	67	4	12.0	5	17.5
12. Korea Quarry (since suspended)	0.35	..	1	8	..	..	2	5.0	1	2.5
13. Sawang	0.40	..	..	..	..	..	4	17.2	3	13.00**
14. Jhingurdiah	2.00	..	..	..	..	..	6	48.0	4	17.0
15. Umar	1.00	0.14	2	18	2	18	5	19.5	4	13.5
16. Manikpur	1.00	0.13	..	..	..	..	4	24.0	4	24.0
17. Jagannath (suspended)	1.00	..	2	16	2	16	2	10.0	..	..
18. Jamuna Quarry (suspended)	0.31	..	..	..	..	..	3	12.0	1	2.5
19. Singrauli I (since suspended)	3.65	..	3	68	..	..	10	64.0	..	..
Total	20.73	5.17	13	215	10	147	95	426.7	74	320.5
		25%				68%				75%

TO CHAPTER VI
Equipment in N.C.D.C. Collieries

Name of Project	Dumppers				Dozers			Graders	
	As per P.R.		As on 31-1-67		P.R. Nos.	As on 31-1-67	As per P.R.	As on 31-1-67	
	Capacity		Nos.	Capacity					
	Nos.								
	12	13	14	15	16	17	18	19	
		C. Yds.		C. Yds.					
1. Bokaro	34	664	39	800	3	6	..	1	
2. Kargali	37	537	39	547	5	8@	..	1	
3. Kurasia	15	225	17	229	5	5	1	1	
4. Korba Pilot	16	205	17	261	3	5	1	1	
5. Gidi 'A'	37	480	31	443	4	8	1	1	
6. Gidi 'C'	15	200	20	414	2	3	1	..	
7. Saunda	15	230	10	150	3	6	1	..	
8. Bhurkunda	35	541	24	348	5	5	1	1	
9. Kathara	82	2,241	94	2,243	12	10	2	2	
10. S. Balanda	18	537@@	18	467	5	4	1	1	
11. Bismampur	16	640	13	410	3	4	..	1	
12. Korea Quarry (since suspended)	6	87	6	95	2	..	1	..	
13. Sawang	19	377	8	123	3	2	..	..
14. Jhingurdah	33	845	15	209	6	4	1	1	
15. Umrer	28	544	14	136	7	5	1	1	
16. Manikpur	29	522	22	396	6	5	..	1	
17. Jagannath (suspended)	10	455	..	..	6	2	1	..
18. Jamuna Quarry (suspended)	8	128	1	16	3	..	1	..	
19. Singrauli I (since suspended)	51	2,389	..	..	16	..	1	..
Total	504	11,847	388	7,287	99	83	15	13	
				61%		84%		87%	

@1 old U.S. Army disposal dozer.

& Includes 2 U. S. Army disposals with capacity of 3.5 Cu. Yds.

*Includes 4 U. S. Army disposals with capacity of 7 Cu. Yds.
@12 dumpers of 22 tons have been taken as 33 Cu. Yds.
capacity as they are to be used only for coal.

\$Approximate.

**One Shovel not yet erected.

CHAPTER VII

PROJECT IMPLEMENTATION—CERTAIN QUESTIONABLE DECISIONS

We have thus seen that there were a number of deficiencies in the planning and implementation of projects of the N.C.D.C. Many of these deficiencies may be attributed to the speed with which the N.C.D.C. was to achieve its tasks for fulfilling the development targets. For the Second Plan, while the overall target for achievement was fixed, it was some-time before the precise projects were determined and the project reports prepared. These were based on inadequate data and consequently the quality of coal and the working conditions in these projects were found to be different from what had been assumed when preparing or sanctioning the projects. Several changes had therefore, to be made not only in the list of projects but also in the precise methods of working in several projects. To attain the requisite speed in fulfilling the target, mechanisation was proposed although it had not been tried on such extensive scale in this country. In actual working, the projects were only partly mechanised and so the objective of high outputs and lower costs was not achieved. It may also be conceded that when these projects were taken up, the detailed technical project planning as we now know it, was not generally practised in this country with the result that the methods of planning, undertaking and completion of projects were not systematised. Some of these deficiencies were evident even in respect of the Third Plan development.

2. Even if some of these deficiencies are attributed to the lack of experience and to the speed and haste with which the Corporation engaged itself in fulfilling its tasks, certain important decisions taken in the course of implementation of projects cannot be explained as attributable to the need for the speedy attainment of the targets. We have referred in the last chapter to the expenditure of about Rs. 80 lakhs, on the purchase of equipment which has not been utilised, as it was not suitable to the working conditions in the mines in India. Some other such decisions are dealt with in greater detail in the following paragraphs.

3. We have already referred to the decision which the Corporation seems to have taken some time before the end of December, 1960 to go all out during the subsequent three months to prove that N.C.D.C. had indeed attained the capacity of producing 13·5 million tonnes of coal per annum. During the year 1960-61, the monthly production had risen from 466,000 tons in April, 1960 to 657,000 tons in December, 1960. The despatches kept pace with this rate of production. The pit-head stocks at the end of December were 405,000 tons as compared to 313,000 tons at the end of April. The production during January, 1961 was 979,000 tons whereas the despatches remained unchanged at about 600,000 tons. In February and March, 1961 the reported production was 1·1 million tons and 1·3 million tons, respectively, whereas the despatches were 591,000 tons and 674,000 tons. The large difference between production and despatches during these three months increased the pithead stocks to the high figure of 1·87 million tons at the end of March, 1961.

4. In our First Report, we have briefly referred to the imprudence of stepping up production when it was known that there was not the transport capacity to move all the coal produced from the pitheads. The dangers of producing coal significantly in excess of what can be despatched are well-known and it is not as if the N.C.D.C. management which had made this decision and the Ministry of Mines and Fuel which approved of it were unaware of these dangers. Firstly, there is the danger of loss by pilferage or by spontaneous combustion or by deterioration in quality as well as disintegration, resulting in larger production of slack. Secondly, as pointed out in our First Report, attempts were made by officials at some two or three collieries to misreport actual production, with a view to showing that they had reached the targets. In one project the dumper capacity which is the basis for calculating actual production was raised from 9.14 tonnes per trip to 11.5 tonnes per trip between January and March, 1961. In another place, coal exposed by overburden removed and blasted was sought to be regarded as part of production, even though it had not been moved from site. The fact that for the purpose of balance-sheet, production figures were re-adjusted having regard to the actual stocks as verified does not diminish the seriousness of this attempt to over-state production. In one place, the counting of blasted coal as part of production gave rise to the allegation that the large quantity of coal blasted and kept at site was the cause of spontaneous combustion which involved expenditure of about Rs. 46.9 lakhs in protective measures and the sealing of the mine for nearly a year which in turn meant a loss of profit of some 40 to 50 lakhs of rupees. However, the Enquiry Committee of Senior Mining Engineers which went into this allegation found that the blasted coal was not the cause of fire, and the fire started in another small stock of coal which had been lying there for some months. The incident, however, illustrates the dangers involved in holding large pithead stocks for long periods.

5. It is not as if these dangers were not known. In his letter to the Secretary of the Department of Mines and Fuel, the then M.D., N.C.D.C. wrote on the 7th January, 1961 that a Member of the Planning Commission and its Adviser who had visited the collieries on the 2nd and 3rd of January, 1961 had expressed to him their concern at the prospects of those large stocks of coal lying uncleared for indefinite periods. The Planning Commission Adviser had indeed verbally suggested it to him after consulting the Railways and the Coal Controller, that the N.C.D.C. should restrict production in order to avoid unnecessary accumulation of coal which in his view was a national waste. The object of this letter by the M.D. was to put forward his different point of view and to advise the Department of Mines and Fuel to oppose any such suggestion if it was officially repeated by the Planning Commission in Delhi.

6. In opposing the suggestion to restrict production at the time, the M.D. pointed out that "one of my principal difficulties in increasing the rate of production has been adverse psychological atmosphere which has existed all around us. We have been repeatedly told by the representatives of the private sector of the industry and by the press generally that we cannot possibly reach the target. . . . All this had a demoralising affect on our workers. . . . They are all very keen now to vindicate the position of the Corporation and demonstrate by actual results that they can get very near the target if not reach it. . . . Even if

there is a certain amount of national waste, I think the general atmosphere of confidence which the N.C.D.C. will create by reaching upto a level of about 12 million tons will help the Corporation considerably in its work in future years, in the Third and the Fourth Five Year Plans”.

7. The letter further adds “our mines are now highly mechanised and we have employed the required technical personnel at all levels from fitters and operators upwards, for the target production. By restricting production both the men and the machines, would be under-employed. This is another form of national waste”.

8. The letter ends by asking “since this was a very important matter of policy, Government should be informed to it.” He asked that “unless he heard from the Department to the contrary, he proposed that the production effort would continue to be built up”.

9. The Department of Mines and Fuel in its reply of the 12th January, 1961 agreed that the production should not be restricted deliberately, that efforts should be made to reach the target to the maximum extent possible; and that in the absence of transport, “coal may continue to be stacked at the pit-heads”.

10. It would thus appear that both the N.C.D.C. management and the Department of Mines and Fuel took the deliberate decision to push up the production irrespective of the transport facilities available for removing the coal from pitheads. The decision seems to have been taken with a view to counter-acting adverse propaganda in the Press and by the private sector of the industry.

11. From the commercial and industrial point of view, this was not a prudent decision. It involved national waste. The argument that under-employment of staff and machinery was also another form of national waste cannot justify the decision. Its staff and machinery was under-employed, the proper course was to make adjustments in them, or if it was for a temporary period, to accept the fact, and not employ them on unwanted production. Immediately after this period, the N.C.D.C. had to take deliberate measures to reduce production during 1961-62, in order to clear the large accumulation of pit-head stocks. The plant, machinery and man-power thus remained under-employed any way for a much longer period after this artificial rise in production. Additionally some of the measures which the local officers of the N.C.D.C. would have taken to ‘prove’ their project capacity possibly had a longer term effect. It is possible that excessive manpower was employed during this period, which it was difficult later to reduce. It is equally possible that maintenance of machines was neglected during this period. This large artificial increase in production could not have been achieved without sacrificing maintenance or utilising machines where they could not be suitably employed. In specific projects where machines could not be used, the project officers would have engaged additional manpower for manual execution of part of their work. It is well-known that additional manpower once employed cannot be easily reduced. Thus from many points of view, the decision to reach this target merely to prove its capacity during this last quarter of 1960-61 must be regarded as unbusiness-like and detrimental to the commercial and industrial interest of the Corporation.

12. The Managing Director of the N.C.D.C. who strongly defended the production effort on the 7th of January, 1961 and called for the support of the Ministry for his action and received this support, had to alter his view in about ten weeks' time. By 18th of March, 1961, it became clear to him that a downward revision of the production programme was inevitable. In his letter to the Secretary of the Department of Mines and Fuel on that date the M.D. write "we cannot afford to go on with the present rate of production and continue to add to our stocks. In many collieries there is a sheer lack of stacking space. Even more important is that summer having set in with the rains to follow, there is a distinct danger of the coal stocks catching fire*. Every precaution is being taken against this. Pipe-lines have been laid to sprinkle the stock with water, trenches have been cut to avoid large heap at one particular place. We are also trying to plaster the stocks with mud to avoid air getting into it. Nevertheless, in some collieries these heaps are as high as 60' to 70' and the danger of fire cannot be ruled out. Coal deteriorates with exposure". For these reasons, the M.D. reluctantly came to the conclusion that reduction of the rate of production was inevitable. Some of the undesirable aspects of raising coal substantially in excess of the rate of despatches have been mentioned in this letter itself. He pointed out that:

- (i) The tempo of production was difficult to be built up. It required a good deal of effort on the part of field officers to build up the psychological atmosphere to gain maximum output. This atmosphere would receive a set-back when the rate of production was reduced and would have to be built up again when increase of production was required.
- (ii) The mines were equipped for target production. A good deal of machinery and equipment could not be diverted to any other use and remained under-employed. The excavating machinery of opencast mines could be shifted to the removal of overburden but as back-filling was not possible without extraction of coal, the cost of removal of overburden would be greater.
- (iii) Men had been employed, both skilled and unskilled, for the target production. No large retrenchment was practicable and in the case of skilled operators, it was not desirable. Consequently lower rate of production would mean under-employment and higher costs.
- (iv) Coal dumped on the ground would have to be rehandled, thus involving additional expenditure. The M.D. thought that all these factors would raise the cost of production as much as Rs. 5 per ton and the profit of the Corporation would correspondingly be reduced.

13. If these considerations which influenced the mind of the M.D. and the Ministry and Board of Directors in March, 1961 had occurred to them only ten weeks or three months earlier, much of the waste which had then taken place and which had had some longer term effects on the N.C.D.C.'s working would have been obviated.

* A fire did break out in Kurasia colliery in May, 1961 resulting in the closure of the mine for over a year.

14. The M.D.'s letter of the 18th March, 1961 was examined at an inter-departmental meeting in Delhi on the 22nd March 1961. The meeting came to the conclusion that there was no need to cut down production in the outlying areas at Korba, Kurasia, Talcher, Doulbera and South Balanda. The Railway representatives assured that Railways would move in the ensuing months all the coal in stock and all the coal which might be produced at those collieries. The details were to be discussed between the Ministry of Mines and Metals and the Railway Board. The meeting agreed, however, that there was no option but to reduce the rate of production of the Karanpura Collieries including Kathara and that the transport capacity should be planned and improved for greater off-take of coal from Bengal-Bihar areas.

15. These decisions further demonstrate that in 1961, the view generally held was that there was still a large unsatisfied demand for coal and the difficulties were mainly those pertaining to transport.

16. The production during 1961-62 continued to remain at the lower level as was stipulated in the M.D.'s proposal of 18th March, 1961.

17. The total production in the year was 6.3 million tonnes as planned for in those proposals. The monthly production was of the order of 500,000 tons. Even with this smaller production, certain collieries still continued to have large stocks. The promise of better transport facilities apparently did not materialise. By the beginning of 1962-63 the pithead stocks had, however, come down to 0.64 million tonnes.

18. It would appear that by the end of 1962-63 the transport bottleneck had eased. Nevertheless, the demand for coal did not show any significant rise. As early as March, 1963, the then Minister of Mines and Fuel expressed concern as to the absence of increase in demand for coal according to expectation. He noted that the position of coal had eased so much at major consumer-points that there was practically no problem in this connection. The Minister asked the Department to investigate this sudden turn in the position of supply of coal. He had first thought of setting up an Enquiry Committee to go into the matter but agreed that the investigation could be made by the Department itself.

19. A detailed investigation followed and it was found that for various reasons, the Third Plan demands would not be as high as 97 million tons. The detailed questioning of various industrial authorities led to the conclusion that the 1965-66 demand would be of the order of about 90 million tons. Working on somewhat different basis, the Department of Economic and Defence Co-ordination also came to the conclusion that the Third Plan target for coal would not be more than 90 million tons. In several of the monthly reports of the M.D. of N.C.D.C. the difficulties of selling coal, specially from the outlying areas of Madhya Pradesh and Orissa were emphasised. While detailed reasons were not given, the M.D., N.C.D.C. also came to the conclusion that it was unlikely that the coal demand would become as high as 97 million tons in the final year of the Third Plan.

20. Another exercise made with a view to ascertaining the progress of various development projects also led to the conclusion that the N.C.D.C.

target of 30 million tons in the final year of the Third Plan would not be achieved for various reasons. The main factors which had delayed the development of the sanctioned projects and the achievement of these targets were lack of foreign exchange, accounting for a delay or deferment of projects, having the target of 5 million tons of coal, shortfall of another 1 million tons on account of delays in the commissioning of the power plants which were to be supplied coal by N.C.D.C. mines, and the further 1.5 million tons on account of transport not being fully adjusted to production. It was thus expected that the shortfall in targets would be of the order of 8 million tons. This assessment was reported to the Ministry of Mines and Metals on 31-5-1963.

21. The question was considered by the Ministry as to whether any downward revision of targets or review of projects was necessary. The conclusion was that the lull in demand might well be temporary. In its letter dated 17-7-63, the Ministry informed the N.C.D.C. that the latter should at least stick to the reduced development target of 22.45 million tons. The letter states "your view is that the demand of coal is not likely to come up to 97 million tons as it would mean an increase by about 60 per cent over the current level of production. On other occasions, too, you had advocated the pruning down of the target. The private sector has also expressed concern about the slackening tempo of demand, but were opposed to curtailing its development plans already initiated as it would mean locking up of a considerable amount of capital already invested. Our view is that it is premature to think of reducing the target because the present slackening tempo of the demand may only be a temporary phase".

22. In reply to this letter, the M.D. assured, "while I have no intention at all to slow down deliberately the pace of development, it would be highly unrealistic on my part to give rise to the expectation that the full Third Plan target is likely to be achieved. Some shortfall will arise because the foreign exchange is not readily available. A further shortfall will arise because either transport is not available or the demand does not exist. These difficulties I can overcome but only by the very wasteful method of producing coal which will remain indefinitely at the pitheads".

23. In a further letter to the N.C.D.C. dated the 16th January, 1964, the Ministry of Mines and Metals asked "we note the Corporation expects to produce at the end of the Third Plan 22.45 million tons. I am to request that the Corporation should endeavour to stick atleast to this revised schedule and ensure that production capacity is developed according to the targets so that production to the desired level can be stepped up at a short notice. I am to request that the question should be reviewed half yearly".

24. These letters have been quoted at some length as they seem to provide the thinking at the time and the apparent justification for the decision that was taken by the N.C.D.C. in November, 1963 to go ahead with the civil construction programme in a number of collieries. Tenders had been invited for residential accommodation and other accommodation, townships, water supply and other measures for the development of new collieries particularly in Madhya Pradesh area. These tenders came to be considered in October, 1963. After an internal discussion, it was proposed that contracts valued in the aggregate, at 2.6 crores of rupees be made for the execution of these civil works.

25. While original papers are not traceable in the N.C.D.C. office we have seen copies of notes which were put up by the Financial Controller on 19-10-63 to the M.D. suggesting that in view of the prevailing slump in demand, the civil construction programmes might be restricted. The Financial Controller referred to the considerable surplus capacity which existed at Kurasia, Korea and Bi rampur and suggested that the capital outlay programme in respect of 4 new collieries in Madhya Pradesh be rephased. His concrete suggestion was that the Corporation should not have any elaborate capital outlay on machinery and equipment or housing until it became evident that within a year or so the production was expected to reach within the reasonable limits of the targets. In regard to the housing programme, he considered that the residential quarters totalling to 200 units per mine should be sufficient in the first place. He also stated that other senior officers of the N.C.D.C. had also expressed similar views.

26. The M. D. considered this note on his return from a foreign tour towards the end of October, 1963. He did not agree with the general proposition that the construction programme should be slowed down because of the slump in the market of coal. He pointed out that there was a clear instruction from the Government that development work should not be slowed down on account of the slump. The original housing programme was thereupon put up for sanction with some small modification and was approved by the Board of Directors on the 12th November, 1963.

27. The main point of our mentioning this particular decision is that even before this decision was taken some senior officers of the N.C.D.C. and more particularly the Financial Controller had expressed the view that this large construction programme might well turn out to be infructuous and caution was advised. While some civil construction is inevitable near collieries in order to provide accommodation for staff and workers, specially in areas which are located away from places where such accommodation can otherwise be provided the wisdom of providing all the accommodation right from the time of taking up the project is atleast questionable and would require serious thought as to its necessity. The note of the Financial Controller had pointed out how in Giridih and South Balanda, quarters built had been found to be surplus to the needs of the workers and staff engaged at these collieries. It could not have been unknown that ordinarily the development of a colliery took a much longer period than the completion of the civil works providing residential and other facilities. There was therefore no need to rush with this large programme and the more cautious proposals made by the Financial Controller could have met the needs. We do not object to N.C.D.C. as a good employer providing reasonable accommodation to its staff and workers and in this respect we are impressed with the fact that compared to the private sector collieries the N.C.D.C. has maintained high standards in providing accommodation, water supply, electricity roads and other amenities and conveniences to its employees. Nevertheless, a large amount of expenditure has been incurred on this civil works programme and quarters built have remained unoccupied, thus rendering the expenditure instructuous. We are also doubtful whether in interpreting the Government instruction that the tempo of development should not be slowed down, it was correct to equate the programme of development to the programme of civil works under taken for providing residential accommodation and other amenities.

28. The imprudence of this decision becomes quite evident when it is realised that within a period of not more than 3 to 4 months of the order of issue of the contracts for these programmes, the N.C.D.C. itself undertook to reverse the process. The new M.D. took charge on the 6th March, 1964 and at the end of that month, at a headquarters meeting of the senior officers, it was decided to halt the civil works programmes and to limit it to the minimum possible scale. Instructions went out to the effect that the contractors be asked to limit construction work to the buildings which had already made certain progress and to measure the material brought to site with a view to enable the headquarters to renegotiate the contracts. A Committee comprised of Financial Controller, the Civil Engineer and another Civil works officer at the Headquarters entered into a series of discussions with the works contractors with a view to curtailing the programmes, and the overall programme was brought down from about Rs. 2.6 crores to about Rs. 1.6 crores as a result of these renegotiations. We have not examined in detail as to whether the strict instructions which had been issued for a heavy curtailment of the programmes on the 31st March, 1964, were fully carried out. We assume that these matters would have received attention by the Committee which renegotiated the contracts.

29. In reordering the programme of civil construction, the then Managing Director recorded in a note on 4-4-64, 'these decisions had to be taken in order to avoid the possibility of large number of buildings remaining un-utilised, doors, and windows being stolen and unauthorised occupants getting into it. The curtailment does not affect the essential development programme which the N.C.D.C. is expected to carry out. The current coal situation and the need for keeping production in tune with demand have forced these decisions. The efficiency of an organisation depends on its resilience to meet changing conditions in a dynamic society and it is in the context of the present situation that unanimous decisions as incorporated in the minutes in the note had to be taken by all the top officials of the N.C.D.C.' We cannot, after all these years, judge why these thoughts could not have occurred to persons who approved of the large civil construction programme only three or four months earlier.

30. The slump in the demand for coal from these outlying areas continued during 1964-65 and 1965-66. During these years, as many as 7 different coal mine projects were closed down. An expenditure of about *Rs. 3.5 crores (as per N.C.D.C.'s capital budget statement for 1968-69) incurred on these mines has thus remained unproductive. Even in respect of mines now working, there are large surpluses of residential quarters. The inference from all these is that there has been excessive utilisation of funds in the provision of residential accommodation and other amenities. At some projects it is likely that some quarters may remain vacant and surplus, even on the attainment of target production. This is likely to be the case where there was under assessment as to the proportion of persons who would be locally recruited. According to the information given to us, the number of quarters now remaining vacant in various areas is about 2,840 with an approximate capital cost of Rs. 1.65 crores.

*Initial expenditure incurred on these mines was Rs. 6 crores, but after crediting the cost of machinery transferred to other projects the net capital cost is now estimated at Rs. 3.5 crores.

31. We are aware that in the matter of providing township residential accommodation etc., the thinking at the Government level was somewhat different in the earlier years of planned development as compared to what it is now. Large townships have come up as part of the public sector undertakings involving a capital burden on these projects. The incidence of this burden is inevitably reflected in the cost of production of these projects. It is, therefore, important that this kind of expenditure should be kept within strict limits. Economics should be observed not only as to the number of quarters to be built, but also as to the specifications and scales of accommodation and the general layout of the townships. It is true that in the outlying coalfields and other projects it is necessary to provide from the outset accommodation for a certain number of people and to provide certain minimum amenities of life including some moderate welfare measures. The right course would be to keep all these provisions at the minimum to begin with and to increase the amenities as the project is commissioned and begins to earn profits. The Bureau of Public Enterprises has examined the matter and issued certain instructions to the project authorities. There would be a considerable improvement in the economics of the public sector undertakings if these instructions were adhered to.

Another questionable decision relates to the construction of Gidi Washery. Details of this decision are referred to in Chapter XXI.



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CHAPTER VIII

OVER-CAPITALISATION

Over-capitalisation is a relative term. It assumes that there is some standard capital cost per unit of production. In industrial units such as the textile mills, it is customary to estimate capital cost at so much per spindle or so much per loom. The cost that may be incurred in installing the entire textile machinery to support the production of each loom or of each spindle is taken into account in order to work out this norm of capital cost. Similarly in other industries, capital cost is often referred to as a certain amount of capital value per unit of production. It is possible to set down such a norm for industrial projects especially where the methods of production are more or less standardised. The over or under-capitalisation of a given plant can then be judged by referring to these norms. Even in industrial concerns, however, with the advance of technology these norms keep on changing. New processes are found which are more capital-intensive, involving more elaborate plant and machinery to manufacture the same product. What is spent on the costlier plant and more elaborate machinery is more than recouped by the recurring savings in operational expenses, either because certain processes which were earlier carried out manually are now subject to some automatic processes or because the new machinery gives a higher rate of production per employee or per unit of time. Higher capital costs resulting from improved technology cannot be termed over-capitalisation. Thus, even in an industrial project where processes are standardised, there may be difficulties in maintaining any suitable norm to judge the over-capitalisation or otherwise of any given plant.

2. In regard to the coal mines, the position is even more difficult. Generally, each mine presents development problems of its own. The coal reserves may be of different magnitudes and at different depths from the surface. Some deposits may be so easily accessible that no elaborate machinery or development is needed for its extraction. A large number of coal mining units in India are manually worked, or use very little mechanical equipment. In their case, the capital requirements would indeed be very moderate. On the other hand, where coal has to be mined at greater depths, considerable development expenditure has to be incurred to get to the coal surface either by inclines or deep and shafts and all such initial development expenditure becomes part of capital cost of the project. Even in respect of this development expenditure, its quantum may differ not only with the depth to which development has to take place before extraction can begin, but also with the roof conditions, the geological strata, the regularity and gradient of the seam, and a number of other factors. Then there is the question of mechanisation. If high speed machinery is utilised, obviously the capital cost of the project would be large. On the other hand, if the production can be maintained at the speed for which the machinery is designed, the saving in unit operating cost could more than recompense for the higher capital charges. Considering the variety of ways in which coal is mined,

the different geological and other working conditions of each mine, the depth and the mineable reserves of coal deposits, it is very difficult to lay down any standards for determining in specific terms the capital cost of a given quantum of production.

3. One other point which often arises in determining the capital cost of the coal mine may also be mentioned. In many projects, coal becomes available for extraction and sale even when the mine is under development. The cost of mining such coal is debited to the capital account and the sale proceeds are credited. The resulting loss or profit thus gets reflected in the capital cost of the project. It is important, therefore, to determine precisely when the mine should be brought on to the revenue account. It is not possible to lay down any hard and fast rule in this respect and the stage at which the mine should be brought on to the revenue account should be determined more on the basis of the factors applicable to particular projects. The problem has been referred to in our First Report and we have suggested that in each case, the position should be reviewed periodically. The data from which the projects are to be put on the revenue account should first be projected in the project report itself and secondly, reviewed from time to time in the light of the progress of and experience in each project.

4. Considering the difficulty of setting any standards for judging the capital cost of a coal mining project, the only way to consider whether a project is over-capitalised or not, is to compare its actual capital costs with the capital costs as estimated in the project report. Such a comparison is possible if the project costs have been properly estimated, its working plans drawn up and evaluated and its various components fully reflected in the project estimates. We have seen how, especially in the Second Plan period, the projects of the N.C.D.C. were prepared hurriedly and in a sketchy manner. The geological data on which the project estimates were drawn up were not found to be satisfactory in the course of actual working of the project. Several departures had been made from the project reports. Even in respect of opencast mines, the development work in the project did not proceed in accordance with what was contained in the project report. Plant and machinery was purchased in bulk and without reference to the specific needs of the project as set down in the project report. The subsequent deployment of plant and machinery did not again strictly follow the contents of the project report. New plant and equipment was diverted from one project to another in order to meet any emergent need for the equipment in the latter project either in order to maintain requisite production or to replace some worn-out equipment or plant under repair. In some cases, equipment was obtained for projects which for other reasons had to be abandoned and this equipment was then diverted to other projects. It is not suggested that these diversions of plant and equipment from one project to another were made without sufficient thought, although it is possible that there may be specific instances of machinery having been diverted without full consideration. The fact remains, that in view of such departures and diversions from the original project, the project estimates themselves have not remained firm bases of comparison. A comparison of the project estimates with the actual expenditure incurred is not, therefore, meaningful nor does it provide suitable guidance to determine whether there has been over-capitalisation in any case.

5. The same conclusion arises from the fact that certain projects which were to be fully machanised are now for other reasons only partly mechanised. In underground mines, in particular, it was expected that suitable loading and conveyor arrangements would be installed. In many cases, because of the unsuitable gradient of the incline, conditions of roof and geological faults, the mechanical system of handling was abandoned. This change involved a substantial increase in the complement of workers, the corresponding machinery remaining idle. Once manual processes were resorted to, it was not altogether easy to revert to mechanised process by reducing or retrenching labour.

6. Apart from these difficulties of determining whether a project is over-capitalised or not, a periodic comparison of project costs with capital costs incurred and of the progress of development, is in itself very important to secure a more effective control and review on the development of the project. The various departures which have been made from the project report, might have been inescapable. Nevertheless, these have had the effect of weakening the management control over the capital costs of the project. Project reports and project estimates are instruments for ensuring management control on the developmental costs and on the progress of the capital works of the project. It is necessary to ensure that these instruments are available to the management and are made fully effective. We consider that for each developmental project there should be the fullest possible data made available for the purpose of planning, detailed working plan should be drawn and time schedule established for each major item of works and the project officer required to adhere to the working details in his development programme. Any difficulties that may arise in actual execution, involving departures from the estimates should receive joint consideration both by the project and the planning authorities and be resolved on the basis of ensuring the economic execution of the development programme and the economic working of the collieries thereafter. Procedures should be laid down for the submission of progress reviews, periodical re-examination of the project by the planning and the project authorities and for ensuring that major departures are made only with the sanction of the authority responsible for watching the progress of the project. Financial concurrence should be necessary for such departures. Many such departures may even involve reference to the Board of Directors and also possibly to the Central Government, especially where the departures have the effect of making significant changes in the capital costs and the production costs of the projects.

7. We are of the opinion that currently the Planning Section at the headquarters which should carry out all these functions is weak and needs to be strengthened and put in a position of effective control over the progress of the developmental project, in its administrative and financial aspects.

8. In respect of the projects which have already been developed during the last 10 years or more, the time has come when their project details and project estimates are re-examined. We recommend that there should be one or more teams of technical experts made available to the Planning Section to go round to each project, consider the changes and the departures that had been made from the original project, reviewing the production potential in the light of probable sales and transport facilities available to the project, the method of working and the operation cost, set down the tasks for improving productivity and

recast the project estimates in the light of all these considerations. The team should comprise of financial and technical officers of adequate seniority. They would have to consult the Sales Office as well as the Project Officers in the field. The A.G.M. should also be a member of the team. Revised project reports so prepared would then become a suitable point of reference for ensuring management control on costs and progress of development.

9. While it is not possible to determine in precise terms, whether there has been any over-capitalisation in the N.C.D.C., there is evidence to show that on certain parts of its investments, the expenditure incurred could have been less. A detailed analysis of the capital costs is, therefore, undertaken in the next chapter.



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CHAPTER IX

CAPITAL OUTLAY ANALYSED

According to the information furnished to us, the break-up of N.C.D.C. investment as on 31-3-67 is as follows :—

	(figures in crores of rupees)				
Land	2.68
Buildings	22.93
Plant and Machinery including in transit, in stores and advances for plant and machinery	*78.28
Wagons and locomotives	0.34
Furniture and Fittings	0.65
Railway sidings	4.83
Vehicles	1.74
Prospecting and boring	8.87
<i>Development :</i>					
(a) Capital outlay in mines	6.03
(b) Roads and Culverts	2.09
(c) Water supply	1.99
(d) Others	24.80
Investment in Korba Partnership	2.24
					157.47

The following comments may be made on each of the above heads of investment.

Land—

2. Mining rights were acquired in terms of the legislation passed in 1957 enabling Central Government to acquire coal bearing properties and vest them in the N.C.D.C. This Act was challenged by the Government of West Bengal; in December, 1962, the Supreme Court upheld the validity of the Act. It is understood that 6,13,292 acres of land have been notified under section 4 of the Act of which 1,04,374 acres have been acquired and 43,466 acres are being worked. Notification under section 4 merely indicates the

						Rs. (Crores)
*Plant and machinery in stores	..	..	..	..	..	18.14
Plant and machinery in transit	..	..	..	..	..	0.39
Advances for plant, machinery and stores	..	..	..	..	..	10.59

intention to acquire but it does not oblige the Government to pay any compensation until the mining rights on the land are acquired. Therefore, the capital cost represents the value of land actually acquired. Some 40% of this area is now covered by projects in operation or under development. The expenditure incurred on the remaining 60% would become productive only as further mines are opened. In the meantime, the land is believed to be in agricultural use, where possible, being leased out for such purposes on annual leases. In any large venture like N.C.D.C. there is bound to be a difference between the land actually acquired and the land actually put to use; but to the extent of this excess certain amount of capital funds remain locked and yield very little return. Considering that these other areas may have to be brought under production over a period of time, there would not seem to be any case for disposing of this excess and release the capital locked in its purchase.

Buildings—

3. The second important head is 'Buildings', on which about Rs. 23 crores have been spent till the end of 1967. Some parts of these buildings were put up for the projects which were taken up for development during the Third Five Year Plan, but later due to difficulty in finding markets, they were kept in abeyance. The total capital expenditure incurred on these seven projects is of the order of Rs. 6.7 crores, inclusive of plant and machinery since transferred to other collieries. After taking credit for the cost of machinery transferred, cost of fixed assets at the collieries is Rs. 3.5 crores. In addition to the capital expenditure incurred, the care and maintenance of these capital assets involves recurring expenditure. In 1966-67 such expenditure was about Rs. 9 lakhs, which together with depreciation and interest of Rs. 46 lakhs amounted to Rs. 55 lakhs which was written off in the accounts. Till 1965-66, all the recurring expenditure was capitalised, thus adding to the capital costs of these projects. In the accounts of 1966-67, however, the entire expenditure amount has been written off in the profit and loss account of the corporation. This accounting procedure has had the effect of increasing the balance sheet losses of the Corporation for 1966-67; on the other hand it has the effect of relieving the burden of capital charge on the projects concerned.

4. A large number of the buildings on which this expenditure is incurred is in residential colonies at various project sites. While in respect of the suspended projects, all these residential buildings have remained vacant and surplus to the current needs, in certain other projects too, a significant number of residential buildings has remained unoccupied and surplus to the current needs of the Corporation. In a few places, they have been made over to certain Government departments for their use. According to the report furnished to us by the N.C.D.C. headquarters, out of about 25,645 quarters built, 2,840 are lying vacant. These again represent capital locked up in assets which have no current productive use. In these figures of surplus, 1,665 quarters are in respect of projects which have been kept in abeyance.

5. The N.C.D.C. is entitled to receive a housing subsidy in respect of miners' quarters from the Coal Mines Welfare Fund. According to the estimates furnished to us, the total amount of subsidy which N.C.D.C. can claim is Rs. 7 crores. So far, Rs. 3.06 crores has been claimed and Rs. 1.89 crores realised. Here again, until the claims are paid, investment funds have remained locked up. More energetic attempts should be made to make these claims and realise them.

6. Development of residential colonies and townships was an essential part of the development projects. The approach of the N.C.D.C. to this part of the development appears to have been to undertake and complete these works speedily. Civil works contracts were made, more or less soon after the projects were approved. Insofar as the development of mines took a much longer time than the completion of these civil works, the expenditure incurred on the latter remained unproductive. Where working conditions in the mines were found to be different from what was assumed in the project reports, changes had to be made in the methods of working in the mines. In some cases, the targets of production had to be reduced. In some other cases, owing to the delays that have occurred in promoting sales and providing transport facilities, the production has remained restricted. In some projects, there seems to have been an under-estimation of local staff and labour who could make their own residential arrangements. Some quarters have, consequently remained vacant and surplus. In all such cases, the completion of civil works to the targeted capacity has resulted in a surplus of quarters and residential facilities as compared to the current needs. It would have been more prudent if the civil works had been staggered and developed on a phased programme, along with the development of production in the colliery.

7. The problem is not peculiar to N.C.D.C. In 1963, the Estimates Committee of the Parliament had already drawn the attention of the Government of India to the large amounts spent on residential colonies and townships in various public sector projects. It is believed that, as a result of this criticism, the present policies are to restrict such construction work to the minimum at the outset, leaving it to the project authorities to add to the residential and other facilities as the project becomes productive and begins to earn profits. This would be the right approach for providing these facilities.

8. Here, as an incidental point, it may be mentioned that the provision of residential facilities and townships involves a burden on the public sector undertakings, the like of which is not to be found in most of the private sector projects. We have come across instances where N.C.D.C. has built excellent roads and other means of communication in their townships, whereas in the neighbouring private sector collieries, the roads were not serviceable, housing was inadequate and the bazar and other facilities were of a very elementary character.

9. We have not examined if the cost of construction was reasonable, nor have we gone into the details of the specifications and the standards adopted for putting up this building work. It is important that in their specifications, such buildings should provide standards which would ensure that the life of buildings as constructed corresponds with the life of the colliery. If the buildings are constructed to last for a much longer period than the life of the colliery, obviously, the capital expenditure incurred on them would involve the Corporation in losses. Life of the buildings should, therefore, correspond, as nearly as may be, to the life of the colliery itself.

10. Elsewhere, we have suggested that there should be special teams set up by the N.C.D.C. to re-examine each of the projects, its cost of development and its working. We suggest that these panels should also examine whether and to what extent civil works at each of the projects are quantitatively and qualitatively in excess of the needs of the projects.

Machinery—

11. We have already come to the conclusion that in the aggregate, the plant and machinery ordered for the opencast and underground mines was not in excess of what was stipulated in the project reports. There has thus been no over-ordering of plant and machinery for the targeted production. In fact, in some respects the orders were substantially below what was required by the projects. This was specially so in respect of dumpers. Insofar as the dumpers required in opencast mines work in combination with shovels, the provision may be said to have been unbalanced. The significance of this comment may be clear when it is realised that a large number of these dumpers have suffered untimely break-down, rendering greater idleness in shovel capacity.

12. Plant and machinery were ordered for projects which were suspended in 1964. Such plant has then been made available to other projects. Similarly plant and machinery meant for one project has often been diverted to the needs of other projects. Consequently, as a result of all this redeployment of plant and machinery, for a certain number of projects machinery now allocated is in excess of their needs as provided in their respective project reports. Such excess, unless it can be justified on the needs of production, would seem to constitute over-capitalisation for these projects. The extent of the surplus can be determined only after the project reports themselves have been reviewed taking into account the working conditions and other factors at each of the projects.

13. We have also referred earlier to unsuitable machinery having been purchased. Several items of equipment were ordered which were found to be unsuitable for conditions of work in this country and have not been used at all or used for purposes not intended, such as the coal haulers now used as water carriers. The estimated cost of these purchases is about Rs. 80 lakhs. All this equipment has remained idle and constitutes an element of over-capitalisation. A review should now be made as to whether the equipment can be used at all and if it is not of any use either now or in near future, then prompt action should be taken to dispose of it.

14. Large quantum of machinery and plant is still in stock. The amount spent upto March, 1967 on the equipment which was lying in stock is of the order of Rs. 18.18 crores. A part of this may be plant and machinery which is still to be issued to the washery projects. It is necessary to determine the extent to which this plant and machinery is in excess of the needs of the Corporation.

15. It has been brought to our notice that some of the earth-moving machinery has been in use for a number of years. Some of it has even completed its serviceable life. However, the projects have continued the use of such machinery owing to frequent break-downs of machinery in use and difficulties of replacements. It has also been stated to us that the productive capacity of the plant and equipment is reduced with age. Thus, the number of dumpers or dozers needed when they are brand new, would be less than the numbers needed when they have been in use for a number of years. Insofar as earthmoving machinery requires more frequent attention after it has been used for a certain length of time, it is necessary to provide some reserve and standby

capacity for use when the machinery is under repair or overhaul and major maintenance. What is needed as reserve and standby capacity for the current operational needs of the project, can be determined in the circumstances of each case. Ordinarily a ten per cent margin should be adequate for the purpose. Here again, the review teams that we have proposed should go into the matter more fully and consider the precise complement of plant and machinery which each project should have, taking into account its current production and the production that it may be required to achieve in the immediate future. The teams should also examine the productivity of the machines, what it should be with the necessary servicing and maintenance, and determine the numbers required on that basis.

16. We have seen how supply of machinery considerably in excess of current needs can lead to indifference in handling the problem of maintenance and breakdowns. It is necessary to guard against such dangers. The issue of new machinery to the projects should be regulated strictly in accordance with the current needs of the project plus a small reserve. The remaining machinery, if ordered and delivered, should remain in stock at central or regional stores.

17. A number of underground mines have not adapted themselves to the use of machinery which was ordered for them. In some projects, the machines could not be used. In certain other projects, machines are used but are not giving the maximum production expected. The output of the machines in many cases is considerably less than the stated capacity, even after allowing for the fact that in conditions obtaining in India the capacity production may be somewhat lower than that obtained in other countries. The problem here is to see how best maximum production can be obtained from the machinery deployed (including what can be made available from other sources) at each of the projects. Here is another field for detailed investigation by the proposed teams.

18. In regard to opencast mines there is a substantial under-employment of plant and machinery provided for. The main reason is the very frequent breakdowns especially of dumpers, caused by inadequate supply of spare parts. In respect of one large opencast colliery we have dealt with this question in some detail. Indeed we are of the opinion that the problem of N.C.D.C. is not so much one of over-capitalisation, as of under-utilisation of the plant and machinery which it had purchased to meet the targeted capacity, as the actual production is far below the targets. The actual production has remained restricted because of inadequate sales and inadequate transport facilities on the one hand and on the other, by poor maintenance and inadequate supply of spare parts for the machinery.

19. There is little that can be said about the next three headings namely, 'Wagons and Locomotives', 'Furniture and Fittings' and 'Railway Sidings'.

20. In regard to 'Vehicles', as a result of our tours and detailed examination in some places that we visited, we have felt that the number of vehicles supplied, especially jeeps, has been on a generous scale. We found that jeeps are supplied

to officers whose duties would not require them to travel extensively or on rough roads. In some cases some local officials themselves told us that the number of vehicles could be reduced. Besides the excessive supply of vehicles there is also the question of expenditure incurred on their running and maintenance. We have seen figures in some places ranging from Rs. 1,000 to Rs. 1,800 a month inclusive of driver's salary, depreciation and interest. By any standards these figures are high. It is not surprising, therefore, that some project officers have thought and told us that economies could be made in this field by the grant of conveyance allowance and facilities for advance for purchase of motor cars than by the provision official jeeps on the present scale. There is little doubt that there is need to bring about a substantial reduction in the numbers and use of these vehicles.

21. In regard to 'Prospecting and Boring,' the capital cost at charge on 31st March 1967 is Rs. 8.87 crores. This includes cost of prospecting in areas which have not yet been taken up for development. To this extent, there is capital locked up, having no immediate production use. The Geological Section of the N.C.D.C. has already been reduced in staff and large part of its equipment has already been disposed of. A review should now be made for maintaining a minimum geological staff which is needed for surveys and such other work of collieries in operation and development, as at present. Adding a small reserve of, say 5 per cent or 10 per cent to meet any unforeseen needs, the balance of the equipment should be disposed of and the surplus employees found employment elsewhere or retrenched. In future, if any large drilling work has to be undertaken, it should be possible to expand the staff and equipment at short notice by drawing on the resources of Indian Bureau of Mines or Geological Survey of India. Necessary complement of officers and men could be taken on deputation or on contract for a limited period and the machinery borrowed or diverted from other uses.

Development—

22. Then there is the *miscellaneous capital head of 'Development'. Two important sub-heads in this area (i) capital outlay in mines; and (ii) others. A large part of the expenditure under these heads relates firstly to the direct cost of developing underground mines, secondly initial expenditure incurred on overburden removal in opencasts, and thirdly the overheads and unforeseen expenditure that may be incurred during the period of development. Very few of the projects taken up by N.C.D.C. have been completed in time and the delays have meant a much larger quantum of overhead expenditure incurred during the development period as compared to what was expected in preparing the project. If, in addition, the colliery shows losses on its production during this developmental period, these losses become capitalised and add to the miscellaneous capital expenditure. There can be some element of over-capitalisation in this amount. But the position would differ from project to project and it should be left, therefore, to the teams proposed by us for special investigation in each project to ascertain separately the extent of capitalised losses and in other ways to consider the extent to which any part of the capital expenditure was infructuous, not representing productive assets.

*The expenditure under this head should be shown for each sub-head separately in the balance-sheet.

Deferred revenue expenditure—

23. An important element of cost in the extraction of coal in opencast mines is the expenditure incurred on removal of overburden. Before coal is extracted, overburden has to be removed and the cost incurred on this operation, therefore, legitimately forms an integral part of the cost of coal extraction. Strictly speaking, as the name implies, deferred revenue expenditure incurred on overburden removal is not a capital charge. Ideally, in a given period such as a financial year, so much overburden should be removed as would be necessary to expose the quantity of coal to be extracted during that period. In the case of a quarry operated under contract or manually it may be possible to achieve this ideal situation. When overburden is removed departmentally by machines, it is not always possible to match the overburden removal with the coal extraction over a limited period such as a financial year. The quantities of coal to be exposed must be large enough to permit mechanical operations for their extraction. Sometimes, with a view to making the best use of the machines available and to avoid idle periods, no more overburden may be removed than necessary for the extraction of coal during that period. This was particularly the situation after 1960-61 in the case of N.C.D.C.'s quarries, when the machines and men employed on production of coal to the maximum level had then to be shifted to overburden removal during 1961-62 when coal production itself had to be restricted owing to smaller demands, leading to some lack of balance between overburden removed and coal extraction.

24. In regard to the charging of expenditure on account of the overburden removal to the coal production, at the beginning, the N.C.D.C. followed a system of computing the cost at the average cost per cu. yd. of overburden removal and the average of overburden ratio as given in the project estimates for the entire life of the quarry. This system continued to be used till the accounts of 1959-60.

25. A change was made in the accounts of 1960-61 and afterwards. It was found that the cost per cu. yd. of overburden removal differed substantially from the average cost as given in the project estimates. It was, therefore, decided that for the purpose of charging the expenditure to coal production cost, the cost per cu. yd. of overburden removal should be calculated from the up-to-date expenditure incurred in each colliery on the removal of overburden. This cost per cu. yd. was then multiplied by the average ratio of overburden to coal in order to give a rate per tonne of coal raised. The system was an improvement on the system earlier followed but it did not help in fully allocating the expenditure incurred on the overburden removal over the life of the quarry. This was partly because the average ratio of overburden to coal as estimated in the project estimates was found to be different from the actual coal overburden ratio. Large amounts of overburden removal expenditure charged to suspense thus remained unabsorbed in the cost of coal removed even when the quarries had reached the stage of exhaustion. In the Korba Pilot Quarry with the quarry more or less exhausted, there was a balance of as much as Rs. 16.69 lakhs in the deferred revenue expenditure relating to overburden removal, in similar conditions, Saunda had an unabsorbed balance of Rs.55 lakhs. Both these amounts have since been written off in the 1966-67 accounts. Lately,

it has been reported that there is a similar unabsorbed balance of overburden expenditure of Rs. 41.88 lakhs for one of the quarries of South Balanda. It has been decided to write off the amount in five years. In certain other quarries like Bhurkunda and Gidi-A also large balances are found to have accrued in the suspense account relating to overburden removal expenditure. At the end of 1966-67, the aggregate balance in this account was as much as Rs. 13.12 crores whereas the coal likely to be available from the areas exposed was, according to the estimates given by the colliery authorities 10.15 million tonnes. The picture as between different collieries was uneven.

26. The matter has been re-examined and a new formula has been drawn up which has taken into account not only the up-to-date cost of overburden removal, but also an up-to-date estimate of coal overburden ratio. This system is expected to result in complete absorption of the expenditure on overburden removal into the revenue account of the cost of production of coal, over the entire life of the quarry. However, it is likely that in respect of some of the quarries, some large amounts of outstanding balance in this account may have to be otherwise written off from the overall profits of the N.C.D.C.



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CHAPTER X

PROBLEMS OF PRODUCTION

In the preceding Chapters, we have devoted our attention mainly to the problems of project planning and implementation. The N.C.D.C. had undertaken a large development programme. Its task was to attain a large production potential, mainly by developing new mines in outlying areas, within a relatively short period. The problems that arose in the speedy completion of this programme, both in physical terms as well as in financial terms, have been dealt with in some detail. It has also been pointed out how by 1963-64 it became clear that against the large production programme that had been undertaken there may not be the matching demand for coal within a foreseeable period. The process of development and the acquisition of men and equipment involving large capital expenditure thus had to be reviewed and in some respects reversed. Since 1964-65, the more important problems of the N.C.D.C. related primarily to the current production.

2. Despite the high targets which the N.C.D.C. set out to fulfill, its actual coal production has been nowhere near those targets, except during the last quarter of the Second Five Year Plan. The all out effort made during that quarter to demonstrate its capacity to produce targetted quantities has already been commented on in one of the earlier chapters. In the immediately succeeding year, it became necessary to restrict production in order to reduce the large pithead stocks built during January—March 1961. The production during 1961-62 was 6.05 million tonnes as compared to 8.05 million tonnes in 1960-61

3. A comparison between the growth in N.C.D.C.'s actual production since 1961-62 with the production in private sector shows that the trends were somewhat parallel. The following are the figures of production as reported to the Coal Controller—

Year					N.C.D.C.	Singareni	Private Sector	Total (Coal)
(In Million Tonnes)								
1960-61	..	..	..	..	8.05	2.57	45.05	55.67
					(13.50)	(2.85)	(43.65)	(60.00)
1961-62	..	..	..	..	6.05	2.83	46.30	55.18
1962-63	..	..	..	..	8.43	3.23	51.79	63.45
1963-64	..	..	..	..	9.00	3.47	52.65	65.12
1964-65	..	..	..	..	8.25	3.65	50.88	62.78
1965-66	..	..	..	..	9.61	4.03	54.09	67.73
					(30.50)	(5.65)	(60.85)	(97.00)
1966-67	..	..	..	..	9.39	4.12	55.05	68.56
1967-68	..	..	..	..	10.35	4.09	52.47	66.91

(Figures in brackets represent target of production in million tons fixed for the Five Year Plans).

It may be noticed that during all these years and especially since 1962-63, the demand for N.C.D.C. coal has remained as stagnant as that for the coal industry as a whole, except during the last year when N.C.D.C. has improved its relative position. For the current year 1968-69, the N.C.D.C. has set itself a target of production of 12 million tonnes although it claims that if the demand could be secured, it would be in a position to produce as much as 14 million tonnes. A separate exercise carried out by the N.C.D.C. management shows that if the plant and equipment which it has at its disposal is properly maintained, and the spare parts and replacements obtained as required, the Corporation now has the capacity of producing as much as 16.97 million tonnes.

4. Included in this figure is 2.54 million tonnes from mines which are still being developed. When these mines are fully developed, they are expected to give 7.76 million tonnes. Thus, the overall production potential of the N.C.D.C. in respect of mines, at present working or under development may be placed at about 22 million tonnes, comprised of 14.4 million from revenue collieries and 7.7 million from collieries under development, when these are brought into full production. In addition, there are the collieries, of Singrauli I, Jaganrath, Bijuri, Sonawani, Katkona, Bhaskarpara, Jamuna quarry and Korea quarry on which further work was suspended in 1964-65 and subsequent years. These involved a capital expenditure of about Rs. 3.5 crores (excluding the investment on Jamuna and Korea quarries for which figures are not available) on fixed and immoveable assets. They had a production potential of about 6.5 million tonnes. Project estimates for all these mines amounted to about Rs. 30 crores, the mine at Singrauli alone accounting for as much as Rs. 15.3 crores.

5. In our terms of reference, we have been asked to examine why the return on investment has not been adequate. The principal answer is that whereas the capital expenditure incurred on investment was determined by the targets of production potential which N.C.D.C. undertook to achieve, the return is determined by the actual production and sales. These have been all along far below the targets and even far below the production potential as determined by the equipment provided, plant and machinery purchased, and the extent of development undertaken. To improve the financial return on capital investment in the N.C.D.C., it is obviously essential to reduce the gap between the production potential and the actual production. It is in this context that the problems of current production assume importance. It is important that for some years now National Coal Development Corporation devotes most of its attention to resolving these problems and in streamlining its organisation, so as to achieve the optimum utilisation of its production potential, at the lowest possible costs.

6. We have briefly referred to these problems in our First Report. We have suggested therein that at the beginning of each year a systematic production plan should be drawn up for each coal mine taking into account the sales potential of the mine and the transport facilities available to it and the cost at which coal can be produced at the colliery. The primary objective is to achieve maximum production with current production facilities at the minimum costs. For this purpose, it is necessary to determine as realistically as possible

the variable and the fixed costs of production at each of the collieries. It is equally necessary to determine the prospective customers for the products of the colliery both for steam and slack and to promote balanced sales of all the production at the colliery. Where pithead selling prices obtainable for the coal substantially exceed the variable costs, it is obviously of advantage to augment production of the colliery to the maximum extent to which sales can be arranged. The N.C.D.C. should be able to expand its market if it goes about systematically into the problems of sales, undertakes aggressive salesmanship among consumers who are within the economic marketable area of each colliery by ensuring competitive prices and adequate quality control and to organise transport and production to meet the needs of each of these consumers. An annual plan of production drawn up after taking into account all these factors which determine the quantum of production, should indicate to the N.C.D.C. as to where it should concentrate its attention as to the deployment of men, equipment and management techniques in getting the best results.

7. For this purpose, the most important sector which needs to receive attention is sales. We have made several suggestions in our First Report as to how sales should be organised. We considered this matter to be of such great importance that we recommended in that report that for some years to come the M.D. should personally supervise this effort. We have also pointed out various ways in which better results could be obtained in this direction. Moreover, a detailed and critical review of the performance of the N.C.D.C. in the matter of sales and the matters which should receive its attention in future have also been included in a further chapter in this Report.

8. Similarly, transport facilities constitute another factor determining the rate of production. While the Railways have claimed that the transport position has eased and that more wagons can now be made available for despatch of coal, the information given to us at various collieries does not bear out this claim. In fact, over the last few months there has been some deterioration in the availability of transport for coal despatches not only for N.C.D.C. but for the industry as a whole. Apart from the overall magnitude of the transport facilities needed for the despatch of coal production, it is also important that the transport should become available when needed. Both in timing and in volume it should match the production. Coal cannot be stacked at pithead for any significant period without loss of quality or danger of fire involving national waste in both cases. It is, therefore, important that the production cycle at the colliery should correspond with the availability of wagons in relevant categories for the despatch of steam and slack. These problems have also been referred to and dealt with in considerable detail in another chapter of this Report.

9. A third important factor determining production is the availability and maintenance of equipment at the collieries. The output at the collieries and the cost of production therefore depend a great deal on maintaining the equipment in proper running order and operating it to the best advantage. The arrangements for maintenance have to be adequate as also the supply of stores and spare parts required for the operation of the machinery as well as for their maintenance. At all the collieries that we visited, there have been numerous complaints of inadequacy and delays in the supply of spare parts

and stores. In regard to spare parts, it has been mentioned to us that the fall in supplies was due largely to the inadequate provision of foreign exchange especially since 1964. The problems of maintenance and supply of spare parts as well as stores and purchase need to be considered in detail and we have therefore reviewed them in detail in two subsequent Chapters.

10. Lastly, the flow of production at the requisite level depends a great deal on the competence of management and the administrative arrangements at the various levels. The problems of management and its efficiency are therefore taken up in subsequent Chapters.



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CHAPTER XI

SALES PERFORMANCE

The sales of performance of N.C.D.C. is one of the most important factors having a direct bearing on the financial position of the Corporation. The main questions to be considered in assessing the sales effort are the extent to which the N.C.D.C. has succeeded in expanding its market in recent years and the overall system under which the sale of coal has been arranged. These aspects along with the lessons to be drawn from the past experience and the directions in which the marketing strategy and sales procedures are required to be re-organised in future are discussed in this chapter.

2. In the first instance we would like to mention some of the important points which are relevant in considering the sales performance of the Corporation in the past. Prior to the formation of the N.C.D.C. the eleven State Collieries had no sales problems whatsoever because almost the entire output of these collieries was taken by the Railways. Thus in the organisation inherited by the N.C.D.C., there was hardly any awareness of the concepts of sales including *inter alia* marketing strategy, sales procedures and commercial practices on which depends the efficiency of sales performance. Further, at the time of formation of the N.C.D.C., the coal market was essentially a seller's market and, therefore, the need for properly organised sales was not keenly felt. It was in August, 1959 that the Sales Department was established. But sales continued to receive less attention than it deserved in the N.C.D.C. even though over a number of years the coal market had gradually turned into a buyers' market in which what was required as aggressive salesmanship, greater quality consciousness and re-organisation of the Sales Department and the sales procedures on more effective lines, particularly in view of the fact that the competitors of the N.C.D.C. were long established in the coal trade. This was bound to affect the growth of coal market and coal production of N.C.D.C.

Trends in production—

3. The following table shows the trends in production of the public and the private sector collieries since 1959-60 :

TABLE 1 : Trends in production of coal (excluding Lignite)

(Million tonnes)

Year	Public Sector collieries		Private Sector collieries	Total
	N.C.D.C.	Singareni		
1959-60	5.01	2.26	41.32	48.59
1960-61	8.05	2.57	45.05	55.67
1961-62	6.05	2.83	46.30	55.18
1962-63	8.43	3.23	51.79	63.45
1963-64	9.00	3.47	52.65	65.12
1964-65	8.25	3.65	50.88	62.78
1965-66	9.61	4.03	54.09	67.73

(Million tonnes)

Year	Public Sector collieries		Private Sector collieries	Total
	N.C.D.C.	Singareni		
<i>Third Plan Target for 1965-66—</i>				
(i) Original	31.00	5.75	61.75	98.50
(ii) Revised mid-term appraisal ..	23.20	5.75	61.75	90.70
<i>Shortfall in 1965-66—</i>				
(i) As compared with original target	21.39	1.72	77.66	30.77
(ii) As compared with revised target	13.59	1.72	77.66	22.97
1966-67	9.39	4.12	55.05	68.56
1967-68† (Provisional)	10.35	4.09	52.47	66.91

*During the year 1960-61 there was an artificial spurt in coal production of N.C.D.C. and the production level of 8.05 million tonnes achieved during the year could not be maintained in the subsequent year.

†For 1967-68, while up-to-date monthwise figures are available in the case of N.C.D.C. the figures for the private sector collieries are only provisional. Therefore, a proper comparison between the public and the private sector cannot be made at this stage.

During the Third Plan period, the overall coal requirements in the country did not come up to the expected levels and, therefore, the total coal production fell short of the target to a considerable extent. However, in the case of N.C.D.C., the shortfall in production was much more pronounced than in the private sector collieries. This was so in respect of production of coking as well as non-coking coal as shown in the table below :—

TABLE 2 : *Production target and achievement for 1965-66.*

(Million tonnes)

	Target			Achievement		
	Coking coal	Non-coking coal	Total	Coking coal	Non-coking coal	Total
N.C.D.C. collieries ..	6.9	24.1	31.00	2.78	6.83	9.61
Private Sector collieries	16.2	45.6	61.8	14.18	39.91	54.09

4. In comparing the additional production contributed by the N.C.D.C. and the private sector collieries during the Third Plan period, an important point has to be kept in view. The base year 1960-61, with reference to which the targets of additional coal production for the Third Plan were fixed was not a normal year for N.C.D.C. because during that year the Corporation had stepped up their production to a level which was artificial and, therefore, could not be maintained in the subsequent year. In the ordinary course, the coal production of N.C.D.C. in 1960-61 could not have more than about

6.50 million tonnes as compared with the actual figure of 8.05 million tonnes. Another important factor is that while the private sector was engaged in expanding production from existing collieries, and in some cases from the contiguous areas, the increase in N.C.D.C.'s production was to be achieved primarily by opening new mines. Naturally, when the market stagnated, new units were at a greater disadvantage. If allowance is made for these factors and the figures of production targets of N.C.D.C. for 1965-66 are adjusted downwards, its achievement will compare less unfavourably with that of the private sector collieries.

5. Saleswise, the higher shortfall in coal production of N.C.D.C. as compared with that of the private sector collieries may be accounted for by the following factors :—

- (i) The main consumers who take supplies of coal from N.C.D.C. are the Railways, Steel Plants and the Power Houses. As stated in an earlier chapter, the shortfall in the coal requirements of these three consumers during the Third Plan period was of the order of 18 million tonnes. Besides a number of other new industrial units proposed for the Third Plan, the coal requirements of which were to be met largely by the N.C.D.C. did not come up. This was bound to have a greater impact on the production programme of the N.C.D.C. than on the private sector collieries.
- (ii) Because of the provision of mechanical loading arrangements, the N.C.D.C. collieries were required by the Railways to arrange loading in Box rakes (i.e. full train load of Box wagons) with the exception of Giridih, Jarangdih and Sawang. These collieries, therefore, could not cater to the consumers who took coal supplies in smaller lots and in four wheeler wagons. Most of the private sector collieries were, however, more favourably placed to expand their market because they were allowed to load wagons piecemeal.
- (iii) The Rationalisation Scheme of Coal Movement restricted the market for the N.C.D.C. collieries particularly in the Giridih and Madhya Pradesh areas. Further, for some of the collieries in Madhya Pradesh there was freight disadvantage upto about Rs. 7 per tonne for consumers in the Western India as compared with the private sector collieries in Pench & Chanda and their competitive position was further weakened due to the levy of siding charges by the South Eastern Railway on discriminatory basis.
- (iv) With easier availability of coal, the consumers were very particular about the quality and size specification of coal supplies. According to the Sales Department a number of the N.C.D.C. collieries did not, in earlier years, display quality consciousness to the extent necessary in a buyers' market and this impeded the sales promotion activities. The difficulties of N.C.D.C. were aggravated due to the fact that the coal of some of the collieries, particularly Kathara, Bachra, South Balanda (slack coal) and Umrer was found to be unsuitable by the normal consumers for

various reasons like higher ash content, fast burning characteristics etc. Quite a large number of orders were lost to N.C.D.C. mainly due to quality complaints. Further, we have seen that the procedure followed by the N.C.D.C. in the disposal of complaints involved considerable delays amounting in some cases to 4 to 5 years. This was bound to have an adverse effect on the confidence of the consumers.

- (v) The N.C.D.C. was a relative new comer into the field and it had to face competition from those who were long established in the coal trade. Moreover, while the private collieries could give unauthorised rebates to the consumers in contravention of the Colliery Control Order to promote their sales, this could not be done by the N.C.D.C.
- (vi) Even with the emergence of fierce competition in the coal market, particularly for slack and inferior grade coal, the Sales Department of N.C.D.C. was not re-organised on more effective lines with the result that no systematic approach to marketing was possible and the sales promotion activities were carried on more or less on *ad-hoc* basis. A number of consumers invited tenders through advertisements to get supplies of coal but there was no arrangement made by the Sales Department to go through all such advertisements with the result that it was not always possible for N.C.D.C. to submit its tenders. At times when certain orders were lost to N.C.D.C. due to some reason or the other, only feeble efforts were made by the N.C.D.C. to get back those orders.

6. It has been represented to us by the Sales Deptt. of the N.C.D.C. that the sales orders obtained by them have all along remained mostly ahead of production in almost all the areas particularly in Karanpura, Orissa, Korba and Umrer. On the other hand some of the collieries even in these areas have complained that sales have been inadequate or that adequate and timely arrangements are not made for the sale of slack or low grade coal and the accumulation of these grades of coal at pit-heads in turn have considerable impact on the flow of production. We have broadly looked into these aspects to get a general idea of the position. We find that in some of the collieries, particularly Kathara, Kurhurbarec (Giridih), Bachra, Argada, South Balanda, Jamuna, Duman Hill, Banki, Surakachar etc., there have been problems of arranging sale of coal particularly of slack size due *inter alia* to higher ash content or the fast burning characteristics of coal, freight disadvantage, the area of marketability being limited on account of restrictions on coal movement placed by the Railways, etc. The pit-head stocks in these collieries have been considerably higher in relation to their monthly production. In respect of certain other collieries in different areas, the sales orders have often been ahead of production. However, it does not necessarily mean any failure on the part of these collieries to take advantage of higher sales orders by stepping up their production. To some extent the sales orders have necessarily to be higher than any specified production level in

order to guard against unforeseen contingencies like (i) certain railway routes and destinations suddenly going under restrictions; and (ii) loss of certain orders at the last moment on account of consumers' difficulties in arranging clearance of wagons at the destinations. Moreover, what is important for the collieries in planning their production programmes is not only the overall sales orders but the volume and proportion of orders between steam and slack coal on month-to-month basis. We have made a study of the position of sales orders on all the collieries of N.C.D.C. for a period of three months and have found that there are at times considerable variations in the volume of orders and their proportion between steam and slack coal from month-to-month on different collieries as shown in the table below :—

TABLE 3 : *Variations in Sales orders in Karanpura collieries.*

(No. of rakes)

Karanpura Collieries			Steam coal			Slack coal		
			March 1967	April 1967	May 1967	March 1967	April 1967	May 1967
Bhirkunda	..	..	24	25	25	19	21	23
Sayal	..	..	13	11.5	11	9	12.5	15
Saunda	..	..	8	11.5	9	7	12.5	7
Bachra	..	..	6	8	7	1	10	8

TABLE 4 : *Variations in Sales orders on other collieries.*

(No. of wagons in four-wheelers)

Karanpura Collieries			Steam Coal			Slack coal		
			March 1967	April 1967	May 1967	March 1967	April 1967	May 1967
Tateher	..	..	585	570	615	120	120	120
Deulbera	..	..	763	704	735	230	162	203
Kurasia	..	..	2,212	2,352	2,184	1,050	884	800
Korea	..	..	870	1,001	1,027	500	477	451
Jamuna	..	..	582	657	716	300	343	300
Banki/Surakachar	..	..	1,009	1,007	1,019	950	1,000	750

It is obvious that the production in a colliery cannot be arranged on a fluctuating basis and will have to be kept close to the level indicated by the volume of sale orders for steam and slack coal in the desired proportion which can be sustained month-after-month. In case the sale orders in right proportions between steam and slack on a particular colliery remain considerably higher than its production on a continuing basis and notwithstanding the availability of adequate transport facilities the colliery concerned is working below its capacity, the matter calls for an examination as to why the production in the colliery is not coming up. The N.C.D.C. should identify and locate such cases, in order to ensure that production in the collieries concerned is stepped up and maximum advantage is obtained of the orders

secured. Sales and production are indeed closely connected activities. It is, therefore, essential to establish a close co-ordination between the sale and production agencies at higher as well as lower levels. In our First Report, we have already indicated how the necessary co-ordination should be achieved in an effective way.

Present Marketing position—

7. At present about 40 to 45 per cent of the total coal production of N.C.D.C. is supplied to the Railways. The trends over the last 9 years have been as under :—

TABLE 5 : *Despatches of coal from N.C.D.C. Collieries.*

(In million tonnes)

year					To Railways	To other Consumers	Total
1958-59	..	..	..	..	1.85	1.83	3.68
1959-60	..	..	..	..	2.38	2.19	4.57
1960-61	..	..	..	..	3.10	3.31	6.41
1961-62	..	..	..	..	2.81	4.05	6.86
1962-63	..	..	..	..	3.48	4.83	8.31
1963-64	..	..	..	..	3.76	4.85	8.61
1964-65	..	..	..	..	3.30	4.49	7.79
1965-66	..	..	..	..	4.08	5.20	9.28
1966-67	..	..	..	..	3.88	5.30	9.18

As regards size-wise despatches, the Railways take about 85 to 90 per cent of the total output of non-coking steam coal, all the production of steam size grade HH coal and a small quantity of slack coal as shown in the table 6

TABLE 6 : *Grade-wise despatches of coal from N.C.D.C. Collieries during 1966-67*

(Million Tonnes)

Grade of coal	Despatches to Railways			Despatches to other consumers				Grand Total
	Steam	Slack	Total	Steam	Slack	ROM Hard/ soft coke etc.	Total	
Grade I ..	2.98	0.34	3.32	0.44	1.38	..	1.82	5.14
Grade II ..	0.14	..	0.14	..	0.07	..	0.07	0.21
Selected A ..	0.01	..	0.01	..	0.01	..	0.01	0.02
Selected B ..	0.19	..	0.19	..	0.16	..	0.16	0.35
Grade HH ..	0.22	..	0.22	..	0.26	..	0.26	0.48
Coking ..	..	..	..	0.16	2.04	..	2.20	2.20
Jatraj ..	..	..	..	..	..	0.50	0.50	0.50
Hard coke ..	..	..	..	..	..	0.08	0.08	0.08
Soft coke ..	..	..	..	..	..	0.04	0.04	0.04
Grade III/IIIB ..	..	..	..	0.01	..	0.15	0.16	0.16
Total	3.54	0.34	3.88	0.61	3.92	0.77	5.30	9.18

8. As indicated above, certain quantities of steam coal are not being taken by the Railways. This is not because the Railways are not willing to take these (except in the case of Bachra and Umrer, the steam coal of which has been found to be unsuitable for railway locomotives), but because the N.C.D.C. considers it better to supply some steam coal to other consumers for striking better deals with them in the supply of lower grades of coal. As regards coking coal, except for Grade HH coal of Kathara and Grade IIIB of Giridih, the entire output of about 2.2 million tonnes is taken by the metallurgical industries (including the Steel Plants, Durgapur Coke Oven Plant, Bhowra Coke Plant etc). The steam size of grade III of Giridih is utilised for making soft coke which is supplied almost entirely to the Defence Department. As regards slack coal, the N.C.D.C. has an assured market for about 0.8 million tonnes, due to the collieries of Jhingurda, and Manikpur (as also Korba) being captive mines linked with the Renusagar Power Project and the Korba Thermal Power Station respectively. The collieries of Silewara and Patherkhera, which are under development, are linked with the Khaperkheda and Satpura Thermal Power Stations respectively. Altogether the N.C.D.C., has at present, an assured market for about 7 million tonnes against the total production of about 10 million tonnes.

9. Out of the balance production of 3 million tonnes consisting mainly of slack and hard coke, the market for about 1 to 1.2 million tonnes of slack is comparatively easy, mainly because of the attractive freight advantage enjoyed by certain collieries in Karanpura and Orissa for certain consumers and also because of the supplies of slack coal being taken by the Rourkela and Bhilai Steel Plants from the Madhya Pradesh Collieries. Further, the problems of disposal of slack coal from two other collieries, namely, Giridih and South Balandra may be solved with the regular supplies being taken by the Barauni & Talcher Thermal Power Station respectively. In respect of a production of about 1.5 to 2.0 million tonnes of slack coal contributed partly by the Karanpura collieries and partly by the Madhya Pradesh collieries, the market is more competitive and constant efforts are required to be made by the N.C.D.C. to retain this market and to expand it further by securing new orders. In the Karanpura area, the N.C.D.C. has to face competition from certain private collieries located in that area and also from some of the private collieries in the more distant Raniganj-Jharia fields who may often give quite high rebates on slack coal to neutralise the freight advantage enjoyed by the N.C.D.C. collieries for consumers in Bihar, U.P. and Delhi. In the Madhya Pradesh area, the competition is reported to be keener due to the fact that the combined output of the N.C.D.C. and the private sector collieries in the region is more than the overall demand of slack coal in the area which can be served by these collieries within the Rationalisation Scheme of Coal Movement imposed by the Railways. Under that scheme, certain destinations like those in northern part of Rajasthan, are not open for supplies from these collieries. If the Rationalisation Scheme is modified, it is possible that the M.P. coal can successfully compete in some of these areas with coal from Bengal/Bihar areas. Further, the N.C.D.C. collieries in Madhya Pradesh are comparatively in an unfavourable position on account of their freight disadvantage for consumers in Western India as compared with the private sector collieries in Pench and Chanda and also on account of the levy of additional siding charges by the South-Eastern Railway. In a separate Chapter we have suggested that transport difficulties faced by different collieries should

be discussed by the N.C.D.C. with the Railways at appropriate level so that the sales problems of these collieries may be solved. As regards, Umrer, the sale problems arise because of the fact that the quality of coal of the colliery has turned out to be bad grade II bordering on Grade III with high moisture content and fast burning characteristics. The coal of this colliery has been tried by the Railways, Trombay Thermal Power Station and also by some of the textile mills in Nagpur, who have found it unsuitable for them. The only other big consumer of Umrer coal is Paras Thermal Power Station but its demand has recently fallen down considerably owing to a mishap at the power station. The coal requirements of the Paras Station will, of course, increase in future, and it is possible that over a longer term, Maharashtra State Electricity Board will buy Umrer coal for their power projects under construction at Bhhusawal and Nasik. The latter is designed taking into account the characteristics, of Umrer coal. In the meantime, N.C.D.C. should explore the possibility of selling Umrer coal to Khaperkheda and Koradi Power Houses at suitable rates.

Future prospects—

10. As stated earlier, the main customers of the N.C.D.C. at present are the Railways who take non-coking steam coal, Steel Plants who take supplies of coking coal and the Power Houses to whom slack coal is supplied. Due to progressive expansion of dieselisation and electrification on the Railways, the overall requirements of loco coal are likely to get reduced in future; from 17 million tonnes in 1966-67, the requirements may decline to about 16 million tonnes in 1970-71 and further to about 14 million tonnes in 1975-76 and 13 million tonnes in 1980-81. (The extension of electrification on the railways will, of course, increase the demand of slack coal for power houses feeding the Railways. No allowance is made for this purpose in these figures.) In spite of this, there may be a scope for increase off-take of coal by the Railways from the present level of about 4 million tonnes from the N.C.D.C. collieries provided the latter can step up their production of the rate of coal needed by the Railways. This is particularly because the Railways are aware of the fact that the overall supplies of coal from a public undertaking like the N.C.D.C. is a great stabilising factor in any emergency arising from the failure of adequate supplies from the private sector collieries. If certain restrictions placed under the Rationalisation Scheme are removed, it may be possible for some of the Zonal Railways, particularly Central and Western Railways, to obtain greater proportion of their coal requirements from the outlying coal-fields thus benefitting the N.C.D.C. collieries. In 1967-68, the Western and Central Railways which should have found it more economic to buy coal from M.P. and Korba regions, purchased as much as about 0.8 million tonnes of grade I steam coal from Bengal/Bihar coalfields.

11. However, as the Railway demand is expected to decline over the years to come, the N.C.D.C. may have to find other consumers also for the supply of steam coal. As regards coking coal and slack coal, the requirements of steel plants and power stations will grow progressively in the years to come and the N.C.D.C. should make special efforts to capture as large a part of the additional market as possible. Besides making supplies to the power stations, the N.C.D.C. may also have to make concerted efforts to cater to the requirement of other consumers of slack coal, namely, Cement, Paper and Fertiliser factories Textile mills, Brick kilns, etc., in an increasing measure. A proposal for setting

up a coal based fertiliser factory in Korba is reported to be under the consideration of the Fertilizer Corporation of India. If such a factory is set up, it will largely solve the problem of marketing of N.C.D.C. coal production in the Korba region.

12. In order to expand its market in future and to tackle with confidence the sales problems which may arise from time to time in different areas and in respect of different collieries, the N.C.D.C. should prepare itself at this stage in right earnest. It is essential to formulate a systematic approach to marketing and remove the deficiencies that inhibit the sale promotion activities. In our First Report we have already indicated the directions in which the task of re-organising the sales procedure should be undertaken. We also made detailed suggestions on a number of points including *inter alia* (a) market surveys to be undertaken by the N.C.D.C.; (b) establishment of close contacts with principal prospective buyers; (c) execution of long term contacts with the buyers; (d) guarantee of continuous flow of supplies; (e) rigid adherence to quality; (f) system of independent inspection at the loading collieries; (g) surprise quality check at the destinations; (h) prompt attendance to quality complaints; and (i) suitable price differentials to be made between different grades and between steam and slack to suit the production programmes and consumer market. In the First Report we have also underlined the need for effective and meaningful liaison between sales and production activities at the working level. Here we would like to add one or two points. At present, there exists a small cell in Sales Deptt. of N.C.D.C. which attends to the quality complaints. Under the present procedure, copies of the complaints received by the Sales Department are forwarded to the collieries concerned for their comments and after these have been obtained, a joint investigation at the destination is arranged, if considered necessary. It has been observed that in most of the cases the collieries take considerable time in sending their comments with the result that there are delays in arranging joint investigations or otherwise disposing of the complaints. In another Chapter we have recommended that representatives of the Sales Department should be posted in some areas, who may, *inter alia*, look after the complaints of the consumers. The officers should pursue the matter vigorously with the collieries concerned. If any joint inspection is called for at the destination, this should be arranged by these officers in collaboration with the collieries concerned without any loss of time and preferable within a week. There should be a system of fixing responsibilities if any inordinate delay is caused in attending to the complaints at any level. Further it is essential that the officers of the Sales Department and of the collieries attending to the complaints should work in a spirit of greater harmony and co-operation.

13. In view of many past complaints, which have remained unresolved over a number of years, the N.C.D.C. may find it expedient to appoint a special Officer at the Headquarters for a limited period, to attend to them and to settle them expeditiously. His experience of handling these complaints can also be availed of, in drawing up a regular procedure for a systematic examination of the complaints and their prompt settlement in future.

System of sale of coal--

14. At present, about 83 per cent of the total coal production of N.C.D.C. is supplied to the Railways and other Government Departments/Public

Undertakings direct without the agency of middlemen. In respect of the balance 17 per cent of output, consisting mainly of slack coal, the sale is arranged through the middlemen. The comparative position in this regard for the last three years is reported to be as under—

TABLE 7 : *Direct Sale of Coal vis-a-vis sale through middlemen.*

	(Percentage)		
	1964-65	1965-66	1966-67
(i) Direct sale to Railways	44.9	45.8	41.9
(ii) Direct sale to Govt. Deptts./Undertakings	32.4	30.5	41.1
(iii) Sale through middlemen	22.7	22.7	17.0
	100.0	100.0	100.0

The more important points relating to the system of direct sale of coal vis-a-vis sale through the middle-men which have a bearing on the financial position of the N.C.D.C., are mentioned in the following paragraphs.

Direct sale of Coal—

15. In making direct sale of coal without the agency of any middlemen, the N.C.D.C. not only saves the commission but also is in a position to realise the dues from the customers within a much shorter period than from the middlemen. Moreover, the system of direct sales provides for greater financial security for N.C.D.C. particularly in so far as the Government parties taking coal supplies are concerned. A few deficiencies have, however, come to our notice and we would like to make a mention of these.

16. The Government parties including the Railways, Hindustan Steel Ltd., D.V.C. and M.P. Electricity Board etc. are expected to make payment on the coal bills within 30 days from the date of receipt of bills by them. In the case of some other Government parties, the credit period allowed is 60 days. While a large part of the dues is realised from the Government parties within these periods, certain amounts remain outstanding beyond 60 or even 90 days. Secondly, large deductions are made by some of the parties from the coal bills due to one reason or the other and in many cases no settlement is made on the dispute for years. The following table shows the position of outstandings and deductions made by the Government parties as on 31st May, 1968.

TABLE 8 : *Outstanding against Govt. parties as on 31-5-68.*

	(Rs. in lakhs)				
	Outstanding beyond 60 days		Outstanding within 60 days	Total outstandings	Deducted amounts (disputed items and counter claim)
	Over one year	Less than one year			
Railways	46.31	29.07	84.96	160.34	39.49
M.P. Electricity Board	55.56	76.17	28.34	160.07	115.03
Bokaro Thermal Power Station	24.00	28.78	8.87	61.65	52.78
Maharashtra Elec. Board	6.68	20.12	7.53	34.33	11.21
Talcher Thermal Power Station .. .. .	..	0.99	5.35	6.34	0.99
Hindustan Steel Ltd.	10.69	53.80	55.34	119.83	61.84
Heavy Engg. Corporation	1.20	3.99	..	5.19	1.05
Patratu Thermal Power Station	1.20	8.36	0.78	10.34	1.98
Obra Thermal Power Station	0.02	..	16.25	16.27	0.02
Rajasthan State Elect. Board	5.15	10.77	4.86	20.78	2.05
Total for Government parties	150.81	232.05	212.28	595.14	286.44

It will be seen that on 31-5-1968 the outstandings beyond 60 days amounted to Rs. 382.86 lakhs, out of which Rs. 286.44 lakhs represented the deductions made by the Government parties due to various reasons. Payment of the balance amount of Rs. 96.42 lakhs had been delayed by the parties even though there is no dispute about the dues. The delay in respect of an amount of about Rs. 80 lakhs is reported to be for more than 90 days. The N.C.D.C. who has to borrow its working capital at $8\frac{1}{2}$ per cent rate of interest can ill afford the realisation of its dues getting delayed. It should make its collection drive more vigorous and ensure that there are no inordinate delays in recovering of dues from different Government parties. As regards deductions, the various reasons assigned by the parties are as under :—

TABLE 9 : *Deductions made by Government Parties*

Main reasons for deductions	Amount deducted (Rs. in lakhs)	Govt. parties concerned
(1) Inferior quality	8.5	Railways.
(2) Difference in grade/size	4.7	DVC (Rs. 2.4 lakhs) HSL (Rs. 2.3 lakhs)
(3) Penalty for shortfall in calorific value	0.3	DVC
(4) Dispute regarding the price charged	130.4	MP Elect. Board (Rs. 84 lakhs) HSL (Rs. 32 lakhs) DVC (Rs. 8 lakhs) Railways (Rs. 6 lakhs)
(5) Underloading	6.0	Railways (Rs. 5 lakhs)
(6) Dispute regarding Sales tax	8.6	Railways, MP Elect. Board and DVC
(7) Excess Claim	1.8	Railways, HSL
(8) Want of DA notes	0.2	Railways
(9) 10% deduction on four wheeler wagons not weighed	1.2	Railways.
(10) Other disputed items	10.7	All parties.
(11) Breaking/crashing charges	22.0	MP Elect. Board
(12) Amount kept in Rly. deposit	0.8	Railways.
(13) Other charges not paid	16.6	MP Elect. Bd, DVC
(14) Deductions on account of construction of culverts	5.7	MP Elect. Board.
(15) Non-acceptance of quantity on account of alleged short supply	26.0	DVC, HSL.
(16) Recovery towards excess moisture	0.2	HSL
(17) Freight paid in excess	0.5	HSL

17. Some of the disputes mentioned above have been pending for a number of years and concerted efforts do not appear to have been made by the N.C.D.C. to expedite their settlement. This is hardly in conformity with the commercial practices and it is essential that vigorous efforts are made to arrive at reasonable settlements with the parties concerned. In so far the dispute over coal prices with the M. P. Electricity Board is concerned, the matter is now under arbitration. Further, it has been reported that the disputes with the Railways regarding coal prices and sales tax have recently been settled. For settlement of the disputes relating to under-loading, quality of coal, excess claim etc., the collieries concerned should either accept the claims of the parties or contest the same with irreputable evidence. Discussions may be arranged by the N.C.D.C. at appropriate level with all the parties concerned to consider the points under dispute and to arrive at expeditious settlement. There is hardly any point in allowing the matters to drag on. We understand that under the agreement between the N.C.D.C. and the Railways, the latter can make deductions from the coal bills on account of quality complaints at destinations after issuing warning about the quality to the colliery concerned in one case. The N.C.D.C. should examine whether the deductions of Rs. 8 lakhs made by the Railways on quality complaints were made in accordance with the prescribed procedure and if so, why the quality of coal supplies could not be improved by the collieries concerned even after receipt of warning from the Railways. It is essential that effective steps are devised by the N.C.D.C. in order to ensure that in future the complaints of the consumers about quality, size, under loading etc. are reduced to the minimum and if deductions are made by any party from the coal bills, immediate steps should be taken by the N.C.D.C. to resolve the disputes. Suitable action should be taken in cases of negligence.

Sales of coal through Middlemen

18. There are at present 47 middlemendoing business with the N.C.D.C. During 1967-68 the volume of business done through them was of the order of about Rs. 5 crores out of the total sale value of over Rs. 32 crores. There are five principal middlemen who account for about 90 per cent of the total volume of business done through all the middlemen, the share of one middleman, namely, M/s. S. K. Kahansons being of the order of about 30 per cent.

19. Among the consumers who are supplied coal through the middlemen are a number of Public Sector Undertakings; mainly the thermal power stations including *inter alia* (i) Harduaganj Power Station; (ii) Kanpur Electric Supply Undertaking; (iii) Gorakhpur Power Station; and (iv) Delhi Electric Supply Undertaking. The more important private parties getting coal supplies through the middlemen are (i) Ahmedabad Electric Company Ltd.; (ii) A.C.C. Ltd.; (iii) Lucknow, Banaras and Agra Power Stations; (iv) J. & K. Rayons, Kanpur; (v) Avile Cotton, Subzimandi; (vi) Shri Gopal Paper Mills; (vii) Shri Ram Vinyl & Chemicals Industries, Barang; (viii) various textile mills, (ix) Sone Valley Portland Cement; (x) Ferro Alloys & Tata Chemicals; (xi) Arvind Paper Mills; and (xii) Certain brick burning contractors. That the proportion of business with the public undertakings done through the middlemen to the total volume of business done by the N.C.D.C. through the middlemen has tended to decline in recent years, is borne out by the figures

of quantum of commission or rebate paid to middlemen during the years 1963-64 to 1965-66 as indicated in the table below :—

TABLE 10: *Commission or rebate paid to Middlemen*

(Rs. in Lakhs)

					Total amount paid	Amount applicable to sales made to the	
						Public Sector Undertakings and Govern- ment Depart- ments	Private Parties
1963-64	..	..	..	..	5.33	5.24	0.09
1964-65	..	..	..	..	4.96	1.47	3.49
1965-66	..	..	..	..	6.05	1.76	4.29

20. An important question that has often been raised is whether or not the N.C.D.C. should employ the services of middlemen for sale of coal particularly for coal supplies to the public sector undertakings. As stated earlier, at present only about 17 per cent of total coal supplies of N.C.D.C. consisting mainly of slack coal, are made through the middlemen, the balance of 83 per cent being direct supplies. The Railways, Steel Plants and a number of other public undertakings are taking direct supplies of coal from N.C.D.C. It is mainly in regard to some of the public undertakings, including *inter alia* the power stations under the U.P. State Electricity Board and the Delhi Electric Supply Undertaking that the supplies have to be made through middlemen because of the fact these consumers prefer to get coal through the agency of middlemen. Similarly some of the private parties also prefer to get coal supplies through middlemen. It has been stated that the market for slack coal is essentially a buyers' market and, therefore, the N.C.D.C. has to accept the fact that the purchase policy of the buyers requires that the sale be made through the middlemen.

21. Various reasons have been assigned for the strong preference of certain consumers including some of the public undertakings for getting coal supplies through middlemen. The middlemen have branch offices in the important towns all over the country and are thus in a better position to provide prompt and quick service to the consumers. Moreover, they take responsibility for missing wagons and shortage at destinations. To some extent, they also take responsibility for the quality of coal at the destinations. Further, they attend to the complaints of the consumers promptly and make early settlements of the disputes thereby gaining the confidence of the consumers with the result that the latter do not want this trade channel to be dislodged or dislocated. Another reason for the consumers' preference for the middlemen is reported to be that their services are available to them free of cost. The situation in this respect is rather incongruous. It has been stated that the choice of middlemen lies with the consumers and that it is not the N.C.D.C. who employs their services. Still it is the N.C.D.C. and

not the consumers who pay middlemen's commission. It may be mentioned that under the Colliery Control Order which was in force till recently, a colliery owner was required to pay commission only to a middleman employed by him or employed jointly by him and a consumer. In case any consumer purchases coal through a middleman, the latter was entitled to charge him a commission up to 98 paise per tonne over the coal prices. However, it has been reported that in the circumstances obtaining in the buyers' market, a middleman is employed by a consumer but he automatically becomes a middleman of the producer also and gets commission only from the latter.

22. We agree that as far as possible coal supplies to public undertakings and even to large private consumers should be made direct and not through the middlemen. We are, however, aware of the practical difficulties in achieving this ideal of doing direct business with all the public undertakings. A number of cases have been cited by N.C.D.C. where attempts made by it for direct deals with the public undertakings resulted only in transfer of orders to private sector collieries. In certain other cases the public sector undertakings refused to eliminate the middleman due to one reason or the other. For instance the Industrial Development Corporation of Orissa, in their letter of 30th December, 1966 addressed to the N.C.D.C. argued as under --

"We have more or less decided to take coal through the middlemen as we had some bitter experience with your collieries in the past as there was heavy demurrage on some wagons of coal due to the delay in posting of R/R etc. Ultimately we have to get our requirements through a middleman so that most of these difficulties will be avoided and the middleman will have his worries to supply us the coal in time and also to see that the R. Rs. are posted immediately".

Further it has been reported that the U. P. State Electricity Board who are taking coal supplies from N.C.D.C. collieries through M/s. S. K. Kahansons did not find it profitable to make any change in their purchase procedure because, under the Colliery Control Order they would not share with the U. P. Co-operative Society the commission of 37 paise per tonne which was allowed by the N.C.D.C. to the middlemen.

23. The Committee on Public Undertakings (1967-68) have in their Report on N.C.D.C. recommended that the Government should issue a directive that the public undertakings should not make their purchases of coal through middlemen but direct from N.C.D.C. We had also referred to this matter in our First Report. We had pointed out that the Railways and the Steel Plants were already purchasing from the N.C.D.C. their supplies of the requisite grade of coal to the maximum extent possible and that there might be difficulties in issuing a Central directive to Power Houses, most of which were in the States sector. We, therefore, recorded our conclusion that such a directive would have a limited value. We would suggest that the N.C.D.C. should canvass its sales on the basis of its performance. After decontrol, the N.C.D.C. is in a better position to provide financial incentives to the Public Undertakings to take direct supplies of coal and to eliminate

the middlemen. Further, the N.C.D.C. should look into the grievances of the public undertakings and take effective steps to remove their genuine difficulties. In case the persuasive efforts of the N.C.D.C. for direct business do not fructify, and certain public undertakings are not at all willing to take supplies except through middlemen, the N.C.D.C. should make attempts to have at least any one of the following arrangements :—

- (i) The Public Undertakings may take coal supplies from N.C.D.C. through the middlemen appointed by them. They may themselves pay the middlemen's commission and the amount involved may be reimbursed to them by N.C.D.C. either directly or through rebate in the price of coal. Payment for coal supplies may be made by the undertaking direct to the N.C.D.C.
- (ii) Under a tripartite arrangement, while the coal supplies may be made through the middlemen who may take commission from N.C.D.C., payments may be made by the undertakings direct to the N.C.D.C.
- (iii) There may be a stipulation in the agreements with the middlemen that they will make payment to N.C.D.C. within a reasonable period (say a week or so) after realising the dues from the undertakings.

24. We see no reason why the N.C.D.C., while making concerted efforts to do direct business with public undertakings and large private sector enterprises, should not seek to develop its market fully with the assistance of middlemen who already have a considerable sales organisation around the country. As stated in our First Report, what has been wrong in the present sales procedures through middlemen is not that they are employed for obtaining business, but that their functions and liabilities are not clearly defined except by what goes in the name of trade practices. Any business concern and more particularly a Government concern must reduce to writing all the terms and conditions of its sale rather than leave them to be inferred from trade practices. Such agreements should define, precisely all the respective obligations of the N.C.D.C. as well as of the middleman. It is necessary to make a review of the working of the system of sale of coal through middlemen and remove whatever deficiencies have developed in the system. We have mentioned some of the more important deficiencies in the subsequent paragraphs.

Terms and conditions of sale through middlemen—

25. The Board of Directors in their 20th Meeting held on 25th November, 1958 authorised the Managing Director to appoint selling agents on a commission not exceeding 37 paise (As. 6) per tonne (as provided for in the Colliery Control Order) in respect of slack coal of all grades and steam coal of inferior grade. Subsequently, it was found necessary to appoint Selling Agents for other types of coal also and accordingly at the 69th Meeting of the Board of Directors held on 31st August/2nd September, 1963, the Managing Director was empowered to appoint middlemen for all grades and sizes of coal, except A & B grades of coking coal which could be sold to the metallurgical industries without any difficulty on the allotments made by the Coal Controller. It

has been stated by the N.C.D.C. with the emergence of competition in the coal industry, while the private sector collieries could give unauthorised rebates and commission, this could not be done by the N.C.D.C. in contravention of the statutory provisions. Moreover the N.C.D.C. found its competitive position further unfavourable because its terms and conditions required the sales to the private parties to be supported by bank guarantee or letters of credit, a practice which, it is stated, is not ordinarily followed by the private sector collieries. With a view to making its terms and conditions of sale more attractive in these circumstances, the N.C.D.C. decided to allow longer periods of credit to the middlemen. Earlier, there was no definite directive or decision of the Board as to the period up to which credit could be offered. The Board's resolution dated 25-6-1960 regarding the levy of interest on outstanding bills did, however, indirectly imply that the period of credit might be allowed up to 60 days.

26. It has been reported that while some of the middlemen, particularly, M/s. S. K. Kahansons had been getting credit period of 60 days, in the case of other middlemen the credit period was much shorter. At their 69th meeting held on 31st August, 1963, the Board of Directors authorised the Managing Director to allow in specific cases credit period up to 120 days. We understand that, in practice, credit period of this duration was hardly allowed by the N.C.D.C. to any party. What was done subsequently was that the official credit period which earlier did not exceed 60 days, was increased formally to 90 days in most of the cases. However, the effective credit period enjoyed by some of the middlemen got considerably extended beyond 90 days due to various factors including *inter alia* the following :—

- (i) Inordinate delays in the receipt of bills from the collieries which despatched the coal. According to a Committee* headed by Shri A. B. Guha, the delay ranged from 2 to 12 weeks which was noticed in the case of a few middlemen like M/s. S. K. Kahansons, M/s. Karam Chand Thaper etc. from certain collieries. (It may be added that the credit period is generally reckoned from the date of receipt of bills by the middlemen. Any delay in billing has, therefore, the effect of extending the effective period of credit).
- (ii) delays in the receipt of cheques from the middlemen.
- (iii) delays for periods ranging from 8 to 9 weeks negotiating/encashment of cheques, particularly the out-station cheques, the cheques issued by middlemen.

27. The Guha Committee has observed that the actual period of credit enjoyed by the middlemen in some cases ranged from 7 to 8 months. We have no evidence that positive and effective steps were taken by N.C.D.C. to speed up the billing procedure and to ensure that there are no inordinate delays in

*In May, 1967, the N.C.D.C. had appointed a Committee with Shri A. B. Guha as Chairman and the Financial Controller and Sales Manager as members to look into the circumstances in which dues against private parties got accumulated and to recommend measures for bringing down steadily the outstandings beyond the credit period against M/s. S. K. Kahansons, M/s. Karamchand Thapar & Co. and M/s. S. D. Sethia & Co., within a reasonable time. The Committee made its report in December, 1967.

recovery of dues from the middlemen. We made a study of the position with reference to the coal bills for different middlemen for a period of few months. Some of the cases relating to despatches made in April, 1967 where the effective period of credit for the middlemen was considerably more than 90 days are listed below—

TABLE 11 : *Realisations against bills matured in August 1967*

	Period of fortnight during which coal was despatched	Date on which the bill was received		Date of receipt of cheques from the middlemen	Date of encashment of cheques
		By Sales Office	By middlemen		
M/s. S. K. Kahansons					
(i)	15-4-67	15-5-67	15-5-67	29-11-67	10-1-68
(ii)	15-4-67	15-5-67	15-5-67	29-9-67	8-11-67
(iii)	30-4-67	15-5-67	15-5-67	30-9-67	25-10-67
M/s. Natwarlal Shamaldas					
(iv)	15-4-67	12-5-67	15-5-67	23-9-67	17-10-67
(v)	15-4-67	12-5-67	15-5-67	23-9-67	19-10-67
(vi)	12-5-67	15-5-67	15-5-67	23-9-67	7-10-67
M/s. S. D. Sethia & Co.					
(vii)	30-4-67	12-5-67	15-5-67	6-10-67	16-10-67

28. It would have been more in accordance with good business practice to have conceded even a larger amount of commission or rebate than to have undertaken uncertain liability by allowing them to make payments over extended periods of credit. The main purpose of allowing the credit period to the middlemen is to give them reasonable time to collect the dues from their clients and thereby liquidate their liability to the N.C.D.C. In most of the cases, the middlemen manage to realise dues from their clients within a much shorter period than 90 days where as the effective credit period enjoyed by them from N.C.D.C. extends considerably beyond 90 days. We understand that the credit period allowed by the leading producers in the private sector is about 30 to 45 days in most of the cases and even if another 15 days or so are taken by the middlemen to make payments, a large part of the dues is realised within 45 to 60 days. The decision of the N.C.D.C. to allow longer periods of credit had a serious implication in so far as it afforded an opportunity to the middlemen to utilise the money of the N.C.D.C. for their own use, may be for a limited period, after realising the same from the actual coal-consumers. This was partly responsible for the problem of large outstandings against the middlemen, particularly M/s S. K. Kahansons who invested large amounts in some other enterprises in which the money got blocked up. We feel that if in the past the N.C.D.C. was finding it difficult to compete with the private sector collieries because the latter were reported to be giving unauthorised rebates, the proper course of action for N.C.D.C. was not to give indirect and uncertain benefit to the middlemen by way of longer credit period, but to bring the matter to the Government in order to ensure that either it was also allowed to give higher rebates/commission or an effective way was found by the Government to check the private sector collieries from violating the Colliery Control Order. Alternatively, the Government could have been asked to convert the fixed prices into ceiling prices for all

slack coal. After decontrol*, the position has, of course, changed and the N.C.D. C. can now offer competition in a more direct way. It is now necessary to cut down the period of credit to bring it close to the period during which the middlemen manage to realise dues from their clients. In our view, the credit period should not exceed 45 to 60 days and if in certain specific cases, longer credit period has to be allowed, this should be done for good and sufficient reasons to be recorded in detail. As stated in a subsequent paragraph, the agreements with the middlemen should contain a stipulation for interest being charged on outstandings beyond the credit period.

29. As regards financial coverage, it appears from a note submitted for consideration of the Board of Directors at their 38th Meeting held on 25th June, 1960 that at that time the sales to private parties were supported by bank guarantee, letters of credit or cash deposits to the extent of full value of the coal supplies. However, with the growth of production and under the stress of competition, relaxation was made in this condition and the middlemen were gradually allowed business in excess of the bank guarantee/letter of credit. Till January, 1963 there was no definite order or decision regarding the extent to which the middlemen should be allowed business beyond the financial coverage. By then it was discovered by the N.C.D.C. that outstandings against one middleman namely, M/s. S. K. Kahansons had mounted up beyond all proportions and had exceeded their bank guarantee to a considerable extent. The matter was brought up by the Sales Department before the then Managing Director, who after taking into account a number of factors including *inter alia* the changing complexion of the coal market from a seller's to a buyer's market and the practice followed by large producers in the private sector recorded a note dated 24th January 1963 in which it was laid down that (i) the business with M/s. Kahansons should be allowed up to Rs. 30 lakhs against the bank guarantee of Rs. 5 lakhs and (ii) in the case of other middlemen it should be allowed up to double the amount of the bank guarantee. It appears that the main considerations for allowing greater volume of business with M/s. Kahansons were that (i) they were already doing higher level of business with the N.C.D.C. and it was felt that restrictions on business with them might result in loss of orders effecting the coal production of N.C.D.C. (ii) they had offered to hypothecate some of their properties to the N.C.D.C. to cover the outstanding amount as they were unable to increase the bank guarantee and (iii) they had agreed to pay interest on the outstanding amounts. It may be added that the sales policy thus laid down by the then Managing Director did not come up for consideration at any meeting of the Board of Directors at that time. Subsequently, the position in respect of M/s. S. K. Kahansons was reviewed by the Board of Directors from time to time. As regards the other middlemen, the policy enunciated in the note of 24th January 1963 is still supposed to be in force. However, it has been reported that on a number of individual references made by the Sales Department from time to time, the successive Managing Directors have been allowing relaxations so as not to refuse any business with the middlemen particularly the principal middlemen upon whom the N.C.D.C. depended

*It is noticed that Section 6 of the Colliery Control Order 1945 which specifies the amount of brokerage or commission to be paid to middlemen has not been formally rescinded. The continuance of this Section after the total decontrol of coal price appears to be inconsistent. It is suggested that the advisability of amending this Section may be considered by the Government.

for sale of its slack coal. Thus, in so far as the principal middlemen are concerned, they are in a position to do business with N.C.D.C. many times in excess of their bank guarantee/letter of credit as shown in the table below:—

TABLE 12: *Financial coverage vis-a-vis volume of business*
(Rupees lakhs)

Middlemen	Bank guarantee	Outstanding as on 31-5-68			Deducted amounts (disputed amounts and counter claims)
		Beyond credit period	Within credit period	Total	
1	2	3	4	5	6
S. K. Kahansons—					
(a) Harduaganj, Power Station	..	1.41	22.54	23.95	—
(b) Other consumers ..	7.00	23.32	22.90	46.22	2.59
					(9.59)@@
Total ..	7.00	24.73	45.44	70.17	2.59
					(9.59)@@
K. C. Thapar & Co. ..	4.00	7.02	17.96	24.98	1.39
S. D. Sethia & Co. ..	2.00	4.99	14.04	19.03	1.35
Ikrahnandi Coal Co. ..	0.35@	4.53	16.48	21.01	0.88
Khas Dharambad Colliery ..	2.50	7.64	18.07	25.71	0.79
Total ..	15.85	48.91	111.99	160.90	7.00
					(14.00)@@
All other middlemen (41 in all)	23.36	36.32	6.44	42.76	N.A.
Grand Total	39.21	85.23	118.43	203.66	7.00
					(14.00)@@

@The bank guarantee provided by this firm earlier was Rs. 1.15 lakhs. This was reduced to Rs. 0.35 lakhs by 31st May, 1968. The firm has proposed to furnish an insurance cover instead of bank guarantee. The matter is reported to be under consideration in N.C.D.C.

@@The figures within brackets are the actual deductions where the other figures are as shown by the N.C.D.C. in its statements. It appears that in respect of M/s. S. K. Kahansons, the N.C.D.C. is taking into account only those deductions which in its view merit consideration and other amounts are not being shown by it as the disputed items.

It will be seen from the above table that while the financial coverage provided by the 5 principal middlemen formed quite a small proportion of their business with the N.C.D.C., the financial coverage of the other middlemen is comparatively large in relation to their business. This is mainly because while the five principal middlemen have been given relaxations from time to time to do business many times their bank guarantee, the volume of business allowed to a large number of other middlemen (and also to the new parties) is generally twice the amount of bank guarantee. Under the present conditions, the impact of bank guarantee is unequal on different parties and this might be one of the contributory factors standing in the way of distribution of N.C.D.C.'s business over a sufficiently large number of middlemen in the proportions which may be

in the best interest of the Corporation. It is necessary that the N.C.D.C. should make a review of the present system and take a clear-cut decision as to the extent of business which can be allowed to different middlemen in relation to the bank guarantee. It may be difficult to lay down a rigid policy in this regard but what is necessary is to ensure that the system of bank guarantee helps in reducing the dependence of N.C.D.C. on a few middlemen for disposal of its slack output. Moreover, it is essential that decisions for different middlemen are based more on the credit-worthiness of the parties concerned rather than on the volume of orders which the parties may be in a position to bring as has been the practice in the past in some cases. The N.C.D.C. has been in the coal market for the last 11 years and through experience it must have adequate knowledge by now, about the credit-worthiness of different middlemen in the coal trade. Further, it requires to be examined by the N.C.D.C. how far the present form of bank guarantee is satisfactory both from legal and financial angles. In any case, it should be renewed well in advance. At present, the bank guarantee is provided by the firms for a specified period, generally for one year, at a time and the N.C.D.C. loses control over the amount involved if by the last day of the year, the guarantee is either not renewed by the firm or it is not encashed by the N.C.D.C.

30. We have been told that the N.C.D.C.'s terms and conditions of sales are more stringent than those of the private sector collieries in so far as (i) against the middlemen's commission of 37 paise per tonne allowed by the N.C.D.C. on grade I slack coal, the rebate available from the private sector collieries ranged between Rs. 1.50 and Rs. 2.50 per tonne, (ii) in respect of Grade II and Grade III coal, the maximum rebate given by the N.C.D.C. does not exceed Rs. 2.50 per tonne against the rebate of Rs. 3 to Rs. 9 per tonne given by the private traders; and (iii) there is no system of financial coverage in the private sector which constitutes 5/6th of the coal industry. We have no reliable information regarding the extent to which unauthorised rebates were given by the private sector collieries in the pre-decontrol era. It may be that different collieries might have been giving quite high rebates in different situations to dispose of their output of slack coal. Some of the middlemen informally told us that they got commission of 75 paise per tonne on slack coal from some of the organised leading producers. As pointed out, earlier, however, against the unauthorised rebates reported to be available from the private sector collieries the middlemen have been getting indirect benefit from the N.C.D.C. by way of longer periods of credit. In any case, the position in this respect has completely changed after the decontrol as adjustments can now be made by N.C.D.C. also in the rate of its commission.

As regards financial coverage, it appears that this system is not altogether absent in the private sector. In a written reply dated 3rd November, 1967 to a query made by the Guha Committee, it was stated by one of the leading producers in the private sector that "depending on the standing of the consumer (or middlemen), some sales are covered by an L. C. through a bank nominated by us and through experience we have learnt that this would appear to be the best way of ensuring payment of our dues within the credit period". Another company in its reply dated 4th November, 1967 stated that "except for our

well-known middlemen and large customers, we do require a bank guarantee or in some cases, a cash deposit equivalent to one month's supply or so." The Sales Department of N.C.D.C. has, however, contended that these firms hardly insisted on financial coverage in actual practice. In any case, we feel that while the private sector may afford to do business without any bank guarantee, this can hardly be done by N.C.D.C., operating as it is more on impersonal basis. The middlemen of repute and long standing can manage to get bank guarantee on the deposit of a small percentage of amount or on the security of their immovable property and it has been estimated that, for them the cost of providing financial coverage may amount to about 2 paise per tonne if the volume of business done by them is 5 times the bank guarantee. The cost will be correspondingly higher if the volume of business is comparatively lower in relation to the bank guarantee. It is, of course, recognized that the actual figures of cost may vary from party to party depending upon the conditions on which the bank guarantee can be obtained by them. We would suggest that while maintaining the system of bank guarantee or providing some such alternative as insurance cover taken out by the middlemen, the N.C.D.C. may examine the different situations and if any of its disadvantages are required to be neutralized in specific cases in order to offer better competition in the coal market, this may be done through suitable adjustments in the rates of commission/rebates.

31. We would also like to mention certain other aspect of the system of sale of coal through the middlemen. We have been informed that under the trade practices, the relationship between N.C.D.C. and the middlemen is that of a seller and buyer and not that of a principal and agent. The sale of coal to the middlemen is on f.o.r. colliery basis and, therefore, they are responsible for missing wagons, shortages at destinations and also for quality of coal at the destinations. Notwithstanding this, we find that deductions from the coal bills have been made by certain middlemen, particularly M/s. S. K. Kahansons for quality complaints and for shortages at destinations and also in certain cases for missing wagons. We are, of course, aware that the N.C.D.C. are not allowing the claims of the middlemen in these respect. The point we wish to emphasise is that in order to avoid any kind of dispute, it is desirable that the functions and liabilities of the middlemen are clearly defined in the agreements with them rather than leaving the same to be determined by what goes in the name of trade practice. We have seen some of the letters of agreements exchanged between the N.C.D.C. and the middlemen. In a number of cases these agreements are rather sketchy and leave many vital points regarding the functions and liabilities of the middlemen untouched. It is desirable that in future the agreements with the middlemen taking large and regular coal supplies from N.C.D.C. are executed in a regular form in consultation with the Legal Adviser.

32. One of the main problems in respect of coal supplies through middlemen is regarding the delays in realisation of dues. As stated earlier, the credit period of 90 days formally allowed by N.C.D.C. gets extended in a number of cases due to the delays in submission of bills to the middlemen. In addition, delays are also involved in receipt of cheques from the middlemen and in the encashment of cheques. A considerable amount remains outstanding against the middlemen for quite some time after the credit period. On 31st May 1968

the total outstandings beyond credit period against all the middlemen and selling agents amounted to Rs. 85.23 lakhs which represented over 2 months' sales done through middlemen. Most of these overdues are over one year old. Of all the middlemen, the outstandings beyond credit period against M/s. S. K. Kahansons have all along been the largest. There has been lack of prompt and resolute action on the part of N.C.D.C. on many points in dealing with this firm. From time to time some decisions were taken, but no effective action was taken to realise the dues; nor was the business with this firm reduced.

33. In the past, the N.C.D.C. had been hesitant in taking strong action including suspension of despatches to the defaulting middlemen on the apprehension that this might result in curtailment of orders for slack coal which might lead to curtailment of coal production and thereby increase the cost of production. One of the factors which made the comparative position of N.C.D.C. weak was its dependence on only a few middlemen for disposal of its output of slack coal. This was because N.C.D.C. adopted a rule that supplies to the same consignee were made only through *one* middleman. However, even in that situation the N.C.D.C. could have taken a firm stand in certain cases keeping in view of the fact that (i) the middlemen were to meet their own contractual obligations for supply of coal to their clients and, therefore, it was difficult for them to face suspension of despatches for long (ii) most of the supplies of slack coal made by the middlemen were to power stations and these orders could not be transferred to private sector collieries overnight in view of the contracts entered into by the middlemen for supply of coal from the collieries on approved lists drawn by the stations. In order to provide greater safeguards in future, it is necessary that concerted efforts are made by N.C.D.C. to see that to the extent the sale of coal has to be arranged through middlemen, the business is distributed over a sufficiently large number of middlemen so that dependence on a few middlemen is avoided. The N.C.D.C. might argue in this connection that, placed as it is in a buyer's market, it has little choice in the selection of middlemen. However, we feel that with tact, skill and determination, the N.C.D.C. can influence the buyers in the appointment of middlemen. When any middlemen submits tenders for coal supplies to any consumer, he has to obtain the consent letter of the colliery concerned. This affords the N.C.D.C. an opportunity to exercise its choice in the selection of middlemen. Further, according to the practice followed at present by N.C.D.C., the coal supplies from a particular colliery are not made to the same consumer through more than one middlemen. We have been told that this a "general convention which by and large is followed by the organised sector, particularly British Houses though exceptions might have occurred even in their case to this practice due to deterioration in market conditions". We feel that this practice has made N.C.D.C. dependent on a few middlemen for disposal of its slack output which is not in the interest of N.C.D.C. We see no reason why N.C.D.C. should continue following this practice. In this connection it may be added that at one stage supplies from Giridih to the Barauni Thermal Power Station were made only through M/s. Bhowra Coke Co. but later on a part of the coal supplies (i.e. 25 per cent) began to be made by the Sale Department through M/s. S. K. Kahansons also on the reasoning that it was risky to "put all the eggs in the same basket". Subsequently, in early 1963, the N.C.D.C. persuaded the Power Station to accept the entire supplies through M/s. S. K. Kahansons violating its own precept. In

its letter of 6th February, 1963, the Sales Department wrote to the Power Station authorities that the decision taken in this respect was final and that they might "approve the entire supplies being made through S. K. Kahansons & Co. and accept their bills accordingly." We understand that this arrangement was agreed to by M/s. Bhowra Coke Co., but later they protested. The main point to make is that in certain situations the N.C.D.C. can have a effective say in the appointment of middlemen. It may be added that the business from M/s. Bhowra Coke Co. was diverted to M/s. Kahansons in 1963 when the sales Department had already informed the Managing Director that the overdues against the latter had accumulated to a considerable amount. By this arrangement the dependence of N.C.D.C. on M/s. Kahansons increased further. Subsequently, when the question of reducing business with M/s. Kahansons came up before the N.C.D.C. Management, the Sales Department pleaded helplessness and no positive solution was devised by it. What is required for the future is to design the sales policy in such a way that N.C.D.C. gets out of the present situation in which it feels helpless in taking any action against the defaulting middlemen and for this purpose it is necessary to reduce dependence on a few middlemen.

34. We would like to mention some of the other points also which have a bearing on the speedy recovery of dues from the middlemen and also from the Government parties. The need for speeding up the billing procedure has already been stressed by us in our First Report. We have observed therein that it might be considered whether bills can be prepared daily and for each consignment. As, however, there might be practical difficulties in adopting the billing system on daily basis, we suggest that efforts should be made by N.C.D.C. to introduce billing on weekly basis. It may be added that a decision was earlier taken by the N.C.D.C. in the Managing Director's Co-ordination meeting held on 12th and 13th March, 1965, to change the billing system from fortnightly to weekly basis. We find that subsequently no action was taken by the N.C.D.C. to implement this decision. The system may be introduced now and it should be ensured that bills are prepared and despatched immediately after the close of a week. The Accounts and the Sales Departments should keep a close watch over the situation and all in-ordinate delays should be promptly investigated and responsibility for the same should be fixed. In regard to the realisation of dues, what is required is a process of incessant and direct contacts with the defaulting parties both Government and private. The unit in the Sales Department responsible for realisation of dues from the middlemen should be suitably strengthened so that the collection drive may be made more vigorous. Further, there is need to make early settlements about the deductions made by the middlemen coal bills on various grounds. The debit notes issued by the middlemen should be attended to promptly by the collieries concerned. In the past, there had been considerable delays on the part of N.C.D.C. in attending to the disputes, and this can hardly be regarded as satisfactory for a commercial undertaking.

35. Another measure which may help in the speedy recovery of dues from middlemen and also from the Government parties is to levy interest on outstandings beyond the credit period. As far back as 1960, the Board of Directors decided at their 38th Meeting held on 25th June 1960 that interest at 7 per cent

should be charged on all bills for supplies of coal made on or after 1st July 1960 that remain unpaid for 60 days or more after the date of billing. Further, at their 59th meeting held on 6th August 1962, the Board of Directors decided to enforce the levy of interest on outstanding beyond 60/90 days and to consider the principle of a rebate being allowed for payments made within a specific period. It has been reported that these decisions could not be implemented because (i) the biggest Government party, namely, the Railways refused to accept the clause regarding the levy of interest charges, (ii) in the case of middlemen the levy of interest was not insisted upon because this would have affected adversely the sale of slack coal in a highly competitive market. However, in view of the fact the large amounts remain outstanding against all the parties, the question of levy of interest has to be considered afresh. In fact at their 102nd meeting held on 4th May 1968, the Board of Directors have, on the basis of the recommendation of the Guha Committee already decided that interest at the rate of $8\frac{1}{2}$ per cent may be charged on overdues from a given date to be specified in the notice to the parties concerned. What is now required is to implement this decision effectively. In future, the agreements made by the N.C.D.C. with various parties should contain a stipulation regarding the levy of interest on outstandings beyond the credit period.

36. These are some suggestions which occur to us for making an effective beginning in the recovery of outstandings and in ensuring that in future there are no undue delays in recovering the payments for coal supplies to middlemen. It is not that these are the only ways possible. In any case, it is not for the Committee to suggest what positive measures should be taken in this behalf. Fact remains that the past record of the N.C.D.C. in this respect is hardly flattering. The overdue accounts, that is to say, outstandings beyond the credit period began to accumulate as early as 1962. From time to time, the matter had been placed before the successive Managing Directors, and the Board of Directors. Moreover, the Board had seen the periodic statements of overdues. It is surprising to find that over all these six years the N.C.D.C. has not found it possible to devise effective action and that the situation was allowed to get out of control. The Sales Department and the Managing Director had come to know that the middlemen had been recovering the payment for coal from the consignees and retaining the sales proceeds for their own use even beyond the stipulated credit period. The seriousness of this situation where private parties are allowed to default on the obligation to the N.C.D.C. and to make use of the funds for their own purposes would not seem to have been realised either by Sales Department, Managing Director or the Board of Directors. Every time some action was indicated, it was found that for some reason or other it would not be implemented. However, there was no positive thinking in the matter. It would seem that the seriousness of a private party utilising the funds which should have been duly paid to the N.C.D.C. was either not realised or there was inability to evolve positive action in making recoveries of these outstandings.

CHAPTER XII

TRANSPORT

The economy of working of the National Coal Development Corporation is affected by transport difficulties in more than one way. Firstly, the inadequate and irregular supplies of wagons affect the coal production of the N.C.D.C. adversely. Secondly, the erratic supplies of rakes for slack and steam coal and the inadequacy of the free loading time allowed by the railways result in detention of wagons in the collieries to a considerable extent with consequent financial loss on account of demurrage charges to be paid by the collieries to the Railways. Thirdly, due to the restrictions imposed by the Railways on coal movement under the Rationalisation Scheme, the market for coal particularly of the slack size, produced by the N.C.D.C. collieries in the outlying coalfields gets limited. These aspects are discussed in the paragraphs to follow :

Inadequate supply of wagons—

2. The traffic in coal has an important place in the Railway's operation, constituting as it does about 33 per cent of total freight traffic on the railways and yielding about one-fourth of the total revenue from goods traffic, (including computed revenue from Railway's own materials). With the transport capacity already developed and that being developed, the Railways should be in a position to provide a satisfactory service and to meet all the reasonable traffic demands of the coal industry. There are, however, widespread complaints from the collieries both in the public as well as private sector that the supply of wagons remains mostly less than the indents and also the allotments. The N.C.D.C. has reported that in some of its collieries in the Karanpura fields and also in the Madhya Pradesh area, the transport difficulties were very acute in more recent months. That the wagon supply often falls short of requirements of the collieries is borne out by the following table showing month-wise figures of wagons indented, allotted, supplied and loaded in the N.C.D.C. collieries during the year 1967-68 and during the first three months of 1968-69 :

TABLE 1 : *Transport position in the N.C.D.C. Collieries during 1967-68 and first three months of 1968-69.*

(Number of wagons in four wheelers)

				Indents@	Allotments	Supply	Loading
April, 1967	..	..	..	41,415	32,910	31,124	29,404
May, 1967	..	..	..	43,060	32,212	29,998	30,132
June, 1967	..	..	..	42,151	31,191	28,337	27,779
July, 1967	..	..	..	37,562	29,723	28,255	28,357
August, 1967	..	..	..	32,034	29,245	28,180	25,948
September 1967	..	..	..	33,040	30,696	29,967	29,242
October, 1967	..	..	..	33,164	29,812	28,597	27,484
November, 1967	..	..	..	32,542	30,897	30,036	29,958
December, 1967	..	..	..	38,459	33,861	32,336	31,909

TABLE I—*contd.*

(Number of wagons in four wheelers)

				Indents@	Allotments	Supply	Loading
January, 1968	..	..	..	35,570	32,477	30,370	30,707
February, 1968	..	..	..	39,588	32,141	31,405	30,369
March, 1968	..	..	..	40,122	35,402	33,783	32,951
Total (1967-68)	..	..	..	450,707	380,567	362,418	354,240
1968-69							
April, 1968	..	..	..	40,726	35,804	34,790	34,442
May, 1968	..	..	..	46,470	34,323	32,709	32,478
June, 1968	..	..	..	51,571	32,667	30,224	30,415

@The figures in the column represent essentially the coal loading programme intimate to the Railways. In the case of rake loading collieries, there is no placement of indents on day-to-day basis.

It will be seen that the wagon supplies remained considerably below the indents (i.e. the loading programme) throughout the period under review. We are, of course, aware that to some extent over-indenting of wagons is done by some of the collieries particularly in the Madhya Pradesh area in the hope that by doing so, they might get higher supplies of wagons than what they would otherwise get. It will further be noted that the actual supplies of wagons remained lower than the allotments by 18,149 wagons during the year 1967-68 and by 5,071 wagons during the period of subsequent three months. As regards the actual loading, the ratio of the wagons loaded to the wagons supplied was quite high i.e. about 98 per cent during the year. We made enquiries as to why all the wagons supplied could not be loaded by the collieries. It was observed that in certain cases rakes of Box wagons had to be returned empty because the wagons were received by the collieries at a time when adequate coal of the size for which the wagons were supplied was not available in the bunkers or otherwise there were certain loading difficulties. In certain other cases, due to inadequacy of free loading time allowed by the Railways, the collieries had to return empty one or two wagons of a full rake in order to avoid detention of the whole rake. This aspect is discussed further in a subsequent paragraph.

3. We have come across a number of cases where the collieries had had to curtail production only on account of transport difficulties. Such a situation not only leads to labour unrest but also affects the financial position of the N.C.D.C. adversely. The total production of coal in the N.C.D.C. collieries during the year 1967-68 amounted to about 10.35 million tonnes. But for the transport difficulties experienced by different collieries during the year, the coal production of N.C.D.C. could have been higher particularly in view of the fact that the coal orders secured by the N.C.D.C. for the year are reported to be of the order of about 12.0 million tonnes. It has been reported that in more recent months the coal production has suffered in the collieries in Bisrampur and Kurasia areas due to transport difficulties. Shortage of wagons is also reported to have affected production in the Kargali washery and Sawang colliery. It is necessary that concerted efforts are made by the Railways to improve the wagon supply position in the N.C.D.C. collieries. It may be helpful if an operational plan is prepared by the N.C.D.C. and the Railways jointly every

year for the movement of coal from each colliery on month-to-month basis keeping in view the trends and prospects of coal production in different collieries. The plan might be reviewed from time to time in the light of the actual position obtaining on the Railways and in the collieries concerned.

4. It has often been suggested by the Railways that the coal industry should endeavour to step up coal loading during the slack months (i.e. July to October, or so) when adequate transport capacity is available on the Railways so that the collieries may not have to push up their indents during the busy period from November to June when there is otherwise greater pressure on the Railways due largely to increase in traffic in general goods. There are a number of practical difficulties in implementing this suggestion, the more important of which are briefly mentioned below :—

- (i) The coal industry is such as not so seasonal that the planning of coal production may be done strictly on a fluctuating basis from one period to another. There is some curtailment in coal production in the collieries during the rainy season but this is the period which is slack from the Railways' point of view also. To this extent the slack periods of the coal industry and of the Railways are parallel and the former cannot be expected to arrange for higher loading during this period.
- (ii) The coal industry's ability to stock coal in the "busy season" to be loaded in the subsequent "slack season" when there is abundance of wagons, is limited due to several factors including *inter-alia* (a) lack of sufficient storage and stocking space at collieries, (b) financial implications of keeping the coal stocked, (c) deterioration in quality of the coal stocked and (d) danger of coal stocks catching fire due to spontaneous combustion.
- (iii) The major consumers of the N.C.D.C. coal are the Railways, Steel Plants and Power Houses. They cannot be forced by the N.C.D.C. to take supplies of coal beyond their requirements during the slack period.

Suggestions have been made from time to time that in order to encourage the coal consumers to take greater supplies of coal during the slack season, the Railways might consider giving some financial incentive by way of a rebate, say upto 10 per cent, in the freight on coal moved in slack season. Another way of achieving the objective is to levy a surcharge on coal freight during the busy season. Moreover, the Railways can also provide some incentives by a system of deferred freight charges and by giving their vacant land in the premises of various railway stations to coal consumers on nominal rent for stocking coal transported during the slack period. For the reasons stated above, we are of the opinion that the effect of these suggestions will not be large. However, to the extent these measures can help in reducing the overall fluctuations of traffic demands, these merit serious consideration of the Railways. It may be added that fluctuations in traffic demands on the Railways in busy and slack

seasons are a normal feature on most of the Railways of the world and it is difficult particularly in a free economy, to eliminate such fluctuations altogether though these may be reduced to some extent through incentive measures like differential seasonal freight rates etc. Planning for capacities on the Railways has, therefore, to take into account the seasonal fluctuations to a certain degree.

Irregular and erratic supply of wagons—

5. Another complaint voiced by most of the N.C.D.C. collieries is about the irregularity in the supply of wagons from day to day. The irregularity occurs with regard to (a) timing of supply of wagons and (b) proportion and sequence of steam and slack rakes. This is one of the most significant factors affecting production at the collieries and is also responsible for prolonged detentions and empty return of wagons. The problem may, therefore, be discussed at some length.

6. In the first instance a few relevant considerations which have a bearing on the requirements of collieries for wagon supplies in a particular manner may be mentioned. Production of Run-of-Mine coal consists of steam and slack sizes roughly in the proportion of 60 : 40. Therefore, the supply of rakes for steam and slack coal is needed by the collieries in this proportion. This is particularly so because mixed rakes for steam and slack coal are not supplied by the Railways. Secondly, most of the N.C.D.C. collieries have mechanical loading arrangements and, therefore, they are required to arrange loading of coal only in Box rakes because piecemeal movement of coal is not allowed to them by the Railways. Thirdly, under the present railway rules, any rake supplied to a colliery can be loaded with only that size of coal (whether steam or slack) for which it is earmarked by the Railways. There are separate bunkers for steam and slack coal but the loading point is one and the same. Under these circumstances, every colliery needs certain fixed time intervals to be able to load a steam rake or a slack rake fully and these time-intervals differ from colliery to colliery depending *inter alia* upon the daily average production of different collieries. Thus, for instance the collieries of Bhurkunda and Gidi 'A' can load one rake of steam coal after every 24 hours and one rake of slack coal after every 36 hours (Sundays and holidays being excluded in calculating these intervals). If the supply of wagons can be regulated so as to ensure that the collieries are supplied with steam and slack rakes at these intervals, the problem of detention of wagons may be eliminated altogether. However, in actual practice this rigid cycle of supply of rakes is difficult to be maintained. To some extent variations in the timing of supply of wagons from the 'standard intervals' can be absorbed without any adverse effect due to the existence of bunkers in the collieries. As, however, the flexibility afforded by the existing bunkers and mechanical loading arrangements is limited, any wide variations in timing of supply of wagons from the 'standard intervals' create problems for the collieries.

7. A study of the timing of supply of wagons in the Karanpura area over a period of few months has shown that the supplies made by the Railways are highly irregular and without any regard to the "standard intervals" needed by the collieries. The following table shows the position in this respect in Sayal 'D' colliery for the month of January, 1968 and in Bhurkunda colliery for the first 10 days of November, 1967:

TABLE 2: *Irregularity in timing of supply of rakes in Sayal 'D' in January, 1968.*

Steam rakes			Slack rakes		
Date	Time of supply O'clock	Intervals between consecutive rakes (Hrs.)	Date	Time of supply O'clock	Intervals between consecutive rakes (Hrs.)
3-1-68	20.35	..	8-1-68	6.00	40.30
6-1-68	23.30	74.55	11-1-68	23.05	89.05
10-1-68	12.15	60.45	14-1-68	19.05	56.55
13-1-68	17.35	77.20	16-1-68	22.10	38.10
16-1-68	23.10	52.35	19-1-68	14.00	63.50
18-1-68	17.10	43.00	21-1-68	7.00	41.00
20-1-68	11.00	41.50	(Sunday)		
21-1-68	7.00	20.00	26-1-68	21.00	110.00
23-1-68	14.00	31.00	(Republic Day)		
25-1-68	21.35	55.35	28-1-68	13.15	35.15
26-1-68	21.00	23.25	31-1-68	11.05	51.05

TABLE 3. *Irregularity in timing of supply of rakes in Bhurkunda during first 10 days of November, 1967.*

Steam rakes			Slack rakes		
Date	Time of supply O'clock	Intervals between consecutive rakes (Hrs.)	Date	Time of supply O'clock	Interval between consecutive rakes (Hrs.)
3-11-67	15.00	..	2-11-67	15.30	..
5-11-67	1.30	33.30	4-11-67	9.30	41.00
6-11-67	14.15	36.45	6-11-67	3.15	41.45
8-11-67	9.00	42.45	7-11-67	1.00	21.45
10-11-67	14.30	53.30	9-11-67	0.05	47.05

8. Besides irregularity in the timing, the wagon supplies are often found to be erratic in regard to the proportion and sequence of supply of steam and slack rakes. The position in this respect in Gidi 'A' during the months of November and December, 1967 was as under :—

TABLE 4. *Allotment and Supply of wagons in Gidi 'A'.*

(No. of rakes of 28 Box wagons)

Date	Allotment			Supply		
	Steam	Slack	Total	Steam	Slack	Total
11-11-67	..	1	1	..	..	..
13-11-67	..	1	1	1	1	2
28-11-67	..	2	3	2	2	4
5-12-67	..	1	2	..	1	1
6-12-67	..	1	1	2	..	2
8-12-67	..	1	2	1	..	1
10-12-67	..	1	1	2	..	2
(Sunday)						
17-12-67	..	1	2	1	..	1
20-12-67	1	..	1
21-12-67	..	1	2	1	..	1
26-12-67	..	1	2	1	..	1
30-12-67	..	2	3	2	1	3

9. The irregular and erratic supplies of wagons affect the collieries adversely in a number of ways. At times, when the bunkers are over-flowing, the delay in the supply of wagons may necessitate stoppage of production. In the Kurasia colliery alone, 72 working hours are reported to have been lost during one month i.e. April, 1968 due to late arrival of the empties. If, on the other hand, the empty wagons for the same size of coal (i.e. steam or slack) are supplied at short intervals on any two successive days, there may not be sufficient coal of that size in the bunkers and this may lead to prolonged detention of wagons with consequent financial loss for the collieries by way of demurrage charges. Sometimes two rakes are supplied at the same time or the second rake is supplied when the first one is still under loading. This leads to detention of the second rake because there is one lone loading point in the collieries. On certain occasions there is bunching of rakes in the collieries when there is successive supply of rakes for one particular size of coal (say steam) unaccompanied by supply of proportionate number of rakes for the other size (say slack) during the same period. On some other days the collieries find that the supply of rakes for one particular size of coal is in excess of the average daily production of the mine and/or day's allotment. In all such cases, either the wagons are returned empty by the collieries or there are prolonged detentions of wagons. It may be added that the main impact of the Railway's operational irregularities falls on the collieries, who have to pay heavy demurrage charges on detention of wagons and replenishment charges on the wagons returned empty. Their production also suffers due to vagaries of wagon supplies. Moreover, the irregular supply of wagons prevents the collieries from introducing measures of economy in their costs of production. Once they are assured of regularity in the supply of wagons, they can plan their production and loading programmes in a much more effective and economical manner, and thereby reduce their cost of production and loading because the savings in manpower and wage bills may be quite substantial. If the NCDG is able to improve its financial position in this way, it may be able to offer better competition in the coal market by passing a part of its savings to the consumers including the Railways. The Railways and the national economy will also benefit from the systematic supply of wagons in so far as the wastage of transport capacity by way of wagons detained or returned empty will be reduced.

10. It is thus of utmost importance that the system of supply of wagons is streamlined by the Railways. It will be helpful if in the first instance a study is made jointly by the collieries and the local Railways concerned regarding the desirable "time intervals" for the supply of steam and slack rakes keeping in view the average daily production of the collieries and the flexibility afforded by the bunkers. Efforts should be made by the Railways to keep the variations in the timing of wagon-supply from the "standard intervals" to the minimum. For this purpose it may be necessary to make considerable improvements in the coal pit operations. At present, in making allotments of wagons for different collieries, the Railways determine the empty wagon position for each Depot Yard on the basis of (a) empties on hand and (b) empties enroute which are expected to arrive at the coalfields by 7 A.M. on the day they are to be placed for loading. The IBRD Team on Coal Transport Study which made a detailed analysis of the coal pit operation in 1964 found

that during a period of 15 days, out of the total number of wagons supplied by different Depots, only about 40 per cent were on hand at mid-night and the remaining 60 per cent were received during the day after mid-night and then allotted to different pilots. Thus a large portion of the wagon supply per day has to be met by wagons that are en-route in trains during a portion of the day on which they are to be placed for loading. Quite often there are delays in the arrival of the empties. This explains one reason why pilots operate on an irregular schedule and are frequently very late in placing the wagons for loading. By making available sufficient number of empties in the serving yard and with some small re-adjustment of the allotments procedure (i.e. by making a more realistic estimate of the empty wagon position in different Depot Yards on the loading day after making due allowance for the empties the arrival of which may be delayed beyond 7 A. M.) and with better supervision of the pilot operations, it should be possible for the Railways to ensure that there is punctuality in timing of supply of wagons.

11. In regard to the supply of steam and slack rakes in the desired proportion and sequence, the first requisite is the availability of sufficiently valid programme of steam and slack rakes from the Sales Department of the NCDC. Then allotments of wagons should be made by the Railways in accordance with the loading programme. Further, it has to be ensured that the actual supplies are in keeping with the allotments. It is observed that after the allotments have been made, the actual supplies get unbalanced between steam and slack rakes due *inter alia* to the following factors :

- (i) At times, short supplies on Railway's account are made due to shortage of wagons at the Depot Yards or due to operational exigencies from day to day i.e. inability of the destination station to receive wagons, congestion on any section, marshalling/transshipment yards en-route etc.
- (ii) At other times the Railways make short supplies on "colliery account" when any wagons are already lying under detention in the collieries.
- (iii) The normal rule of the Railways is to make good the arrear supplies on the 4th day of the original date of allotment but the rule is hardly followed in practice. Thus it is observed that sometimes the arrear supplies are made good by the Railways after one day and sometimes 2, 3, 4, 5 and 6 days. Moreover, the supplies are made by the Railways without examining whether these would upset the sequence in the supply of steam and slack rakes.

It follows that to the extent short supplies on "Railways account" or on "colliery account" can be avoided, there will be no arrear supplies to be made good and the problem of the supplies between steam and slack rakes getting unbalanced will hardly arise. We are, of course, aware of the practical difficulties of the Railways and also of the collieries to avoid short supplies altogether and achieve an ideal arrangement. What is required, however, is to reduce the incidence of the problem to the maximum extent possible. Short supplies on Railway's account may decline to a considerable extent if adequate number of empties are made available on day to day basis in the Depot Yards. As regards short supplies on "colliery account", this question is linked up mainly

with the question of detention of wagons in the collieries. There is a vicious circle in this respect. Detention of wagons in a colliery leads to short supplies on "colliery account" necessitating making good of arrear supplies which may not always be on the days convenient to the colliery concerned. This is one of the factors responsible for "bunching" and for "excessive supplies" of rakes on particular days which in turn lead to further detentions. It is necessary to break the vicious circle and this can be done only with the joint efforts of the Railways and the collieries. As suggested in another paragraph, the free loading time allowed at present by the Railways should be increased suitably in keeping with the loading capacity of the collieries concerned. In addition the Railways should entertain the collieries' requests made in good time for revision/cancellation of their loading programmes for particular days. The collieries, on their part, should improve upon their system of forecasting the wagon requirements. These measures should improve the matters considerably. To the extent "short supplies" cannot be avoided, the Railways should ensure that in this process the sequence of supply of steam and slack rakes in the colliery concerned does not get unbalanced. It may be worthwhile if up-to-date charts for each colliery are maintained by the Railways at their Depot Yards indicating the progressive position of supply of steam and slack rakes on day-to-day basis. Further, the Railways should, also consider if it is possible to supply mixed rakes for steam and slack coal (in the proportion of 60 : 40) instead of supplying the rakes for one size of coal only as at present. It may not be difficult to do so in certain cases particularly where the mixed rakes are for a single directional route even though more than one destination may be involved.

Group allotment system—

12. While making a study of the position of wagon supplies in different collieries, it was found that there were occasions when on a particular day there were wagons in a colliery but adequate coal was not available in the bunkers, while in another colliery in the same coalfield the position was different in so far as the bunker there was over-flowing but there were no wagon supplies on that day. Further, during the period from 10th-20th November, 1967, while Gidi 'C' suffered from excessive supplies of slack rakes, the problem in Gidi 'A' colliery during the same period was of bunching of steam rakes. A similar situation again developed in these two collieries in the last week of November, 1967, with the result that whereas both the collieries experienced shortage of wagons for one size of coal there were detentions of wagons supplied for the other size of coal. Such problems may be solved to a considerable extent if the N.C.D.C. collieries in the same area and served by the same Depot Yard are treated as a group and are allowed by the Railways to submit a common loading programme. Even otherwise, it may be considered by the Railways if it is possible to allow diversion of rakes from one colliery to another in certain situations viz. when the grade of coal to be loaded is the same and the despatching station is common.

Formulation of loading programme—

13. The present system of formulation of the loading programme of the N.C.D.C. collieries is also partly responsible for the difficulties experienced by them on particular days on account of bunching of wagons or excessive

supplies of wagons etc. These collieries are under the rake loading system and they do not have to place indents for wagons on day-to-day basis as is done by most of the collieries in the private sector which have not provided mechanical loading arrangements and other facilities to load rakes of Box wagons. It has been reported that rake loading is given a much higher priority by the Railways as compared to the ordinary piecemeal loading where the supplies are made according to the daily indents. Under the present system, the N.C.D.C. collieries are to intimate their loading programme for a month to the Sales Department in Calcutta generally three to four weeks in advance and the latter forwards the same to the Railways. It is understandable that there are various factors including *inter alia* power failure, heavy rains, break-downs of machinery, lightening labour strike etc., the precise effect of which on day-to-day production cannot be estimated in advance. However, even after allowing for these factors, it is observed that the loading programmes drawn up by some of the collieries are not always quite realistic in regard to the total number of rakes and also the proportion and sequence of steam and slack rakes. At times this has a very unsettling effect on the wagon supplies. Further, sometimes the situation in colliery demands that its loading programme should be got revised or cancelled for any particular day at a short notice so as to avoid getting wagon supplies at a time when these are not needed by the collieries due *inter alia* to non-availability of adequate coal in the bunkers, or breakdown in the coal loading arrangements etc. However, we have no evidence that the collieries have always made concerted efforts to get their loading programmes revised or cancelled at short notice according to their actual needs. We have been informed that at present, there is no effective system which may enable the collieries to do so. In the first instance, the collieries do not have facilities for direct and prompt communication with the Sales Department in Calcutta. Secondly, it has been reported that till recently the Railways did not normally agree to the cancellation of wagons being done in the case of collieries which are on rake loading programmes. Thus, supplies of wagons are received by the collieries even on those days when the same are not needed with the result that either the wagons have to be returned empty or detained in the colliery siding for a considerable period. We feel that the position in this regard may improve to a considerable extent if the following arrangements are made :

- (i) The collieries may be allowed to place indents of wagons direct in the Railways Divisional Office a few days in advance of the loading day as is done by most of the private collieries. These indents may be given the same priority as is given to the loading programme at present. The collieries' request for revision or cancellation of indents may also be entertained at the Divisional Office within a reasonable time before the allotments are made.
- (ii) Alternatively, steps should be taken to remove the deficiencies of the existing system of formulation of the loading programme. The collieries on their part should improve upon their method of forecasting the wagon requirements. The loading programme may be formulated on weekly or fortnightly basis and sent to the Railways through the Sales Department a few days in advance. Direct communication facilities may be provided between the colliery areas

and the Sales Department in Calcutta. The Sales Department will have to remain in constant touch with the collieries on the one hand and the Railway authorities on the other, so that the allotments for different collieries may be revised or cancelled at short notice according to the actual needs of the collieries. The requests of the collieries made through the Sales Department for revision or cancellation of the loading programme for particular days may be entertained by the Railways 2 or 3 days in advance of the loading day.

Co-ordination between the Railways and Collieries at Operational level—

14. It will be seen from the foregoing that in day-to-day operations, there arise a number of problems connected with wagon supplies which are required to be settled at local level on immediate basis. It is, therefore, necessary to maintain closer liaison between the Railways and the collieries at operational level so that the available pilots and empty wagons can be utilised to the best advantage of both the Railways and the collieries by supplying the empties where these are needed most and withdrawing the wagons as soon as these are ready after loading. We understand that in the Karanpura area a system of daily contacts on telephone between the A.O.S. Barkakana and the Dy. Superintendent of Collieries (K) has been introduced. This system may be quite helpful and it should be extended to establish close liaison with D.O.S. (T) Dhanbad also. Further, we feel that it may be worthwhile if N.C.D.C. borrows the services of two Railway Officers of suitable rank; one for the Karanpura area and the other for the outlying coalfields to attend to the day-to-day problems. These officers may remain in constant touch with collieries and also the Railways Depot Yards, from where the coal pilots operate. It is felt that the Railway Officers of the rank of D.O.S. on deputation to the N.C.D.C. may meet the requirements.

Sunday loading—

15. The weekly rest day in the collieries begins at 8 A.M. on Sunday and extends upto 8 A.M. on Monday. If loading has to be arranged by any colliery during this period, it can be done only by employing persons on overtime duty. As Sunday is not treated as 'Dies non' by the Railways, the collieries under the rake loading programme have to accept allotments if their requests for exemption from Sunday loading is not otherwise accepted by the Railways. Some of the collieries have complained that quite often the arrear supplies are also made good by the Railways on Sundays with the result that there is bunching of rakes leading to detention of wagons. The main difficulties pointed out by the collieries in arranging loading of wagons on Sundays are as follows—

- (i) The coal raising is not done on Sundays because the labour costs involved therein are quite heavy particularly after the recent wage Board Award. Quite often when wagons are supplied on Sundays adequate quantity of coal is not available in the bunkers with the result that the collieries have either to return the wagons empty and thereby incur replenishment charges or to detain the wagons and pay demurrage charges to the Railways. Further, it has been reported that detention of a rake on Sunday often leads to detention of other rakes on a number of subsequent days.

- (ii) Even if coal is already available in the bunkers and the collieries have to depute only the loaders for Sunday loading, the overtime allowance involved is stated to be high particularly because the collieries have to depute the loaders for all the three shifts in the absence of advance information regarding the likely time of supply of wagons.
- (iii) On account of Sunday loading, the maintenance of coal handling plant suffers leading to frequent breakdowns.
- (iv) Still another argument advanced by the NCDC collieries is that they are on rake loading programme and their normal loading programme for working days (i.e. one rake per working day or two rakes per working day as the case may be), if implemented effectively can take care of all the coal produced by them in a specified period and, therefore, there is no need to arrange loading on Sundays.

16. We feel that the collieries should make concerted efforts to take maximum advantage of the transport capacity available on all the days including Sundays and other holidays. If with suitable adjustments in the production programme, the collieries can raise adequate coal on six working days for being loaded on all the seven days of the week, it may be worthwhile to incur additional cost involved in Sunday loading. The maintenance of coal handling plant should not suffer because loading is not done all the 24 hours. We have noted that coal loading on Sundays is already being done to a considerable extent by a number of N.C.D.C. collieries. The overall position in this respect during the three months period from February to April, 1968 was as under—

TABLE 5: *Average daily loading on week days and Sundays*

(No. of wagons in four wheelers)

Coalfields	February 1968		March 1968		April 1968	
	On week days	On Sundays & other rest days	On week days	On Sundays & other rest days	On week days	On Sundays & other rest days
Karanpura	329.4	274.5	321.4	327.0	353.3	359.0
Bokaro & Kargali ..	249.1	154.6	288.1	112.0	295.1	172.5
Giridih	29.2	45.8	27.1	58.0	25.2	7.0
Madhya Pradesh ..	411.3	204.0	367.2	255.0	413.0	220.0
Orissa fields	66.9	58.6	52.1	48.5	79.9	38.5
Maharashtra (Umrer) ..	41.7	20.0	27.0	9.2	32.1	5.7

It is, of course, recognised that at times the collieries have genuine difficulties in arranging loading on Sundays and their difficulties are aggravated when arrear supplies are also made good by the Railways on Sundays. It is essential that specific difficulties of collieries for particular Sundays are given due consideration by the Railways in making allotment of wagons. Due to production difficulties and high cost involved in Sunday loading, the allotments for Sundays may not be more than about 50% of the allotments on a week day. The exact position in this regard may be decided mutually by the Railways and the collieries concerned. Recently the Railways are reported to have agreed to the allotments on Sundays in Karanpura area being limited to 3·5 rakes of slack coal. It is necessary that this spirit of harmony is extended to other areas also. Further, it has to be ensured that the actual supplies made by the Depot yards on Sundays are not different from the allotments mutually agreed to by the Railways and the N.C.D.C. In case the arrear supplies are to be made good by the Railways on Sundays, this should be done in consultation with the collieries.

Five hour loading rule—

17. Under the rules framed by the Railways, free loading time of five hours (on day and night working basis) in respect of a rake of 28 BOX wagons is given to collieries which are fitted with bunkers having a capacity of 1,000 tonnes or more. There are 3 collieries of N.C.D.C. in the Karanpura area, namely, Bhurkunda, Saunda and Gidi 'A' which have been put by the Railways under the 5 hour loading rule; the free loading time in other collieries being 10 hours. If loading of a rake in these collieries is not completed within 5 hours from the time of supply of the rake, the collieries have to pay heavy demurrage charges amounting to Rs. 1,120 per rake for each detention booked by the Railways' coal pilot guard. The same rake may incur demurrage charges more than once because detention can be booked by the coal pilot after every five hours. Before the enforcement of the 5 hour loading rule in August, 1963, the free loading time allowed to these collieries was 10 hours. It appears that the 5-hour loading rule was framed by the Railways without consulting the collieries concerned and without undertaking any detailed study into the matter. The Area General Manager (Karanpura) has all along been protesting against the rule which was considered to be impracticable in so far as these three collieries were concerned. There has been a prolonged correspondence between the Divisional Superintendent, Railways, Dhanbad and the Area General Manager (Karanpura) regarding the revision of the rule and its interpretation. The main arguments advanced by the N.C.D.C. against the rule and its application are as under—

- (i) The bunkers existing in the N.C.D.C. collieries are only ground storage bins and their size cannot by itself decide the time for loading of wagons because what is more important is the capacity of the belt conveyor which actually does the loading. While handling steam coal, in particular, there is a limit to the speed of the belt and beyond that limit fragmentation takes place. Moreover the incidence of breakdown also increases with the increase in the speed of the belt conveyor. If the loading time is sought to be reduced without increasing the speed of the belt conveyor, the width of the conveyor has to be increased inordinately thus not only increasing the cost

of Reclaim Tunnel but also creating problems of belt replacements. In case the collieries undertake to redesign the Reclaim Tunnels and to replace the belts, it will involve heavy additional capital investment beside hampering production of coal during the period these modifications are done.

- (i) While in the case of manual loading collieries, the loading time can be decreased by engaging more men and loading a large number of wagons simultaneously, the position in the mechanical loading collieries of N.C.D.C. is different because the loading there is done through a single chute and at a time only a part of a wagon can be filled up.
- (ii) The interpretation of the rules by the Railways is not quite correct. The rules provide 5 hours free loading time for collieries fitted with 1,000 tonnes or higher capacity *bunkers loading in Box rakes*. The words "*loading in Box rakes*" mean loading of coal from the bunker *direct into the Box wagons* which is possible only in the case of overhead loading bunkers. Thus strictly speaking, the 5-hour loading rule should apply only to those collieries which have got overhead bunkers (for instance the Kargali Washery etc.). The collieries of Bhurkunda, Saunda and Gidi 'A' where loading is done through belt conveyors should come under the category of "mechanical loading collieries loading in Box rakes without bunkers" and the free loading time allowed for them should be 10 hours as provided under the Railway Rules themselves.
- (iv) The Railway Rules are silent on the time involved in weighment and adjustment of over-loaded and underloaded wagons etc. The Railways at present do not give any extra allowance for weighment and adjustment. The contention of the collieries is that since provision of a weighbridge in the colliery siding is not obligatory, the free loading time provided under the Rules cannot include the time involved in weighment and adjustment. Weighment and adjustment of wagons is necessarily a slow process involving considerable time which varies from about 2 to 4 hours depending upon the number of wagons needing adjustment and the extent of over/under-loading in the wagons to be adjusted. In the case of the collieries which have not installed weighbridges the weighment is done by the Railways themselves in their own yards and the time involved in weighment and adjustment is not included in the free loading time allowed to these collieries. It could not have been the intention of the Rules that the collieries installing weighbridges, which in fact is in the interest of the Railways, should be allowed less free loading time than to those without the weighbridges.

18. As brought out in a subsequent paragraph, the 5-hour loading rule is one of the most significant factors responsible for large scale detention of wagons in the collieries of Bhurkunda, Saunda and Gidi 'A'. Since this rule was enforced in August, 1963, these collieries have been paying heavy demurrage

charges on detention of wagons. During the year 1967-68, about 41 per cent of the total number of wagons loaded in these collieries incurred demurrage. If no demurrage was incurred on the other wagons, it was not because those were loaded during the free loading time of 5 hours. But it was mainly because of the fact that the coal pilots did not visit the collieries immediately on the expiry of free loading time for withdrawal of wagons and thus the late visits of the pilots gave these collieries extra time for completing the loading operation. It has been represented to us by these collieries very strongly that under impracticable rules and its arbitrary interpretation and application, the Railways are extracting heavy demurrage charges from them on the threat of suspension of wagon supplies. Thus, there is a strong feeling in N.C.D.C. that though they made heavy investment in mechanised loading arrangements to be the first to fall in line with the system of Box rake movement introduced by the Railways, they are now being subjected to financial losses under the rules framed by the Railways, while most of the collieries in the private sector which have made no investment to provide for mechanised loading, continue to enjoy free loading time of 10 hours and this too between the convenient time of 0600 hours to 2200 hours. It has further been argued by the N.C.D.C. that the normal business practice would require the Railways to offer a "quick loading rebate" to those collieries which can arrange to return the wagons earlier than the normal free loading time of 10 hours allowed to other collieries in the private sector, rather than reducing the time for these collieries and penalising them when they are unable to comply with it.

19. Our main concern was to have a broad idea of the minimum time which is actually needed by the collieries under the 5-hour loading rule to complete the loading operations in respect of a rake of 28 BOX wagons. We, therefore, got a limited on-the-spot study made in Gidi 'A' colliery. The results of study which were made on 26th December, 1967 are summarised as under :

TABLE 6: *Coal loading operations in respect of a rake of 28 Box wagons on 26th December 1967 at Gidi 'A'*

(A) Loading—					Hours
(i) Time of arrival of pilot	..	..	..	..	12.50
(ii) Loading started at	..	..	..	..	13.30
(iii) Loading stopped at	..	..	..	..	14.55
(No space for onward movement of the loaded wagons due to adjustment of a wagon being made on the weigh-bridge)					
(iv) Loading re-started at	..	..	..	..	15.30
(v) Loading again stopped at (Shift changing)	..	..	..	..	16.00
(vi) Loading re-started at	..	..	..	..	16.07
(vii) Loading completed at	..	..	..	..	18.55*

*At 18.55 hrs., 10th wagon of the rake was being weighed and adjusted.

(B) *Weighment and Adjustment**—

	Hrs
(viii) Weighment started at	15.05†
(ix) 10th wagon weighed and adjusted at	18.55
	(i.e., when loading of the full rake was completed)

(x) Weighment and adjustment of full rake completed at .. 21.30

(C) *Total time from wagon supply to completion of weighment—*

	Minutes
(i) Inspection of brakes etc. and handshunting of wagons to leading point	40
(ii) Actual loading time for 28 BOX wagons	283
(iii) Stoppage of loading for two times	42
(iv) Weighment and adjustment after completion of the loading process	155
Total ..	520

i.e., 8 hours & 40 minutes

As will be seen from the table above, the loaded rake was ready for withdrawal 8 hours and 40 minutes after the time of supply of the rake. On 26th December 1967 the coal pilot did not visit Gidi 'A' colliery for withdrawal of the rake before 9 hours otherwise the rake under study could have incurred demurrage charges because it was practically impossible to complete the loading operations within the free loading time of 5½ hours. As stated earlier, the study was a very limited one. The results of this study were, however, supported by an examination of the data regarding the timing of supply of wagons in Gidi 'A' and the time of withdrawal of the loaded wagons for a period of 9 months from January to September, 1967 which showed that hardly any rake was loaded by the colliery within the free loading time of 5 hours. We feel convinced that the free loading of 5 hours allowed by the Railways for these collieries of Gidi 'A', Bhurkunda and Saunda is not adequate and has to be increased suitably otherwise the collieries cannot avoid detention of wagons and consequent demurrage charges. The insufficiency of free loading time creates a vicious circle of detentions, short supplies on colliery account, arrear supplies on inconvenient days resulting in bunching and/or excessive supplies which in turn

*Adjustment was necessary in the case of 15 BOX wagons.

†The weighment in respect of this rake could be started only at 15.05 hours because there were three other left-over wagons which had to be weighed in the first instance.

lead to further detentions. It is necessary to break this vicious circle. It is understood that a team of Railway Officers of the Eastern Railway which made a detailed time study in Karanpura collieries in February, 1968 has observed that under the existing conditions, the overall loading time required by these collieries in respect of a rake of 28 BOX wagons is about 9 hours. The Deputy C.M.E. (K) who was also associated with the Team has, however, pointed out that the calculations made by the Team did not allow for any time for load adjustment of the last batch of wagons and also for tripping of conveyor belts and other minor breakdowns experienced from time to time. He has asserted that after taking these factors into account, the minimum free loading time should not be less than 12 hours including 10 hours for loading and 2 hours for weighment and adjustment. We feel that the collieries may have adequate elbow room if for the present the free loading time is increased by the Railways from 5 hours to 10 hours. The position might be reviewed later jointly by the Railways and N.C.D.C. in the light of the actual performance in the collieries for some time. This increase in free loading time in the three collieries in question is not likely to have any appreciable impact on the overall turn-round time of wagons on the railways which is at present about 12 days.

20. We are also of the opinion that in the long run it may be in the interest of the collieries and also of the Railways if certain modifications are made in loading arrangements in these collieries so that efficiency of loading operations is increased. In this connection, we would suggest that the N.C.D.C. may examine two alternatives, namely (i) shifting of the weighbridge to bring it under the existing loading point and (ii) shifting of the loading point to the existing weighbridge by using additional belt conveyors. We are told that in the past the Railways did not allow the weighbridges to be installed under the loading point. As no such restriction exists at present, the collieries can, by shifting the weighbridge, save the additional time needed at present for weighment and adjustment of last batch of wagons. We have seen the loading operations in the Andrews Yule's Konastoria colliery in the Raniganj coalfields. The colliery is in a position to complete the loading of a rake in 5 hours due *inter alia* to the fact that weighbridge there is under the loading point. In some N.C.D.C. collieries in other areas, similar results have been obtained. Of course, there are certain other distinguishing features also in the Kunastoria colliery which make it possible to complete the loading of a rake in 5 hours. These include (i) belt conveyor of larger capacity (ii) loading of only Run-of-Mine coal (iii) specially designed gradient of the siding and (iv) mechanised shunting by means of a winch etc. If, in due course, certain modifications in the loading arrangements are made by the N.C.D.C. collieries also, the time needed for loading of a rake may be reduced appreciably.

Rule for leaving behind the rake—

21. Another important aspect of the existing rules of free loading time which is reported to be severely affecting the N.C.D.C. collieries is the rule regarding leaving behind partly loaded rakes. The present system is as under—

- (i) When a Box rake is to be loaded by more than one colliery in the same group or by different collieries, the box wagons are drawn out irrespective of whether loading has been completed or not.

- (ii) In the case of Box wagons in rakes placed for loading at collieries, if only one or two contiguous Box wagons at the end of full rake consisting of 22 Box wagons or more are left not loaded within the prescribed free time, the whole rake is withdrawn. In such cases, demurrage is levied only in respect of the one or two Box wagons not loaded by the colliery and not on the whole Box rake provided the rest of the rake has been loaded within the free time allowed. The wagons not loaded cannot be left in the collieries in these cases.

According to above rules, box rakes are left behind in N.C.D.C. collieries when more than 2 wagons are yet to be loaded by the time the Pilot Guard arrives with the result that the colliery has not only to pay demurrage on the entire rake till the visit of the next pilot, but it also suffers due to the Railway's short supplying the next rake on 'colliery account'. Such short supply of the next rake on colliery account can have damaging effect if it happens to be a slack rake and the slack bunker of the colliery is already full. The rules framed by the Railways discriminate against large collieries loading a rake by itself which is normally the case with the N.C.D.C. collieries. Where a rake is loaded by more than one colliery in the same group or by different collieries, the Box wagons are drawn out irrespective of the number of wagons left for loading and a colliery has to pay demurrage only for the wagons not loaded by it. Single colliery rake loading is a practice which essentially benefits the Railways and hence, such collieries should not be unduly penalised when they have failed to load all the wagons by the time the Pilot Guard arrives. In such circumstances they should be treated in the same way as other collieries.

Demurrage and Replenishment Charges—

22. The demurrage on wagon detentions is charged by the Railways at the rate of Rs. 1,120 for a rake of 28 Box wagons. As regards replenishment charges, these have to be paid by the collieries to the Railways at the rate of Rs. 2,450 for every BOX rake of 28 wagons, returned empty. The following table shows the amounts of demurrage charges paid by the N.C.D.C. to the Railways from 1959-60 on wards :

TABLE 7:—*Demurrage charges paid by N.C.D.C.*

Year							(Rs. lakhs)
1959-60	..	..	..	..	..	..	9.73
1960-61	..	..	..	..	..	..	4.39
1961-62	..	..	..	..	..	..	6.79
1962-63	..	..	..	..	..	..	6.20
1963-64	..	..	..	..	..	..	13.25
1964-65	..	..	..	..	..	..	12.98
1965-66	..	..	..	..	..	..	8.72
1966-67	..	..	..	..	..	..	9.21
1967-68 (Provisional)	..	..	..	..	..	..	14.96*

*The figure of Rs. 14.96 lakhs for 1967-68 represents the amount claimed by the Railways. The actual amount payable is decided after joint discussions between the N.C.D.C. and the Railway authorities.

23. We were informed by the representatives of the Eastern Railway in September, 1967 that the demurrage amount of over Rs. 21 lakhs was overdue for payment by the N.C.D.C. It was further pointed out that of this sum, Rs. 3.65 lakhs were on account of detention of wagons for 5 to 10 hours, Rs. 5.12 lakhs for detention for over 10 hours but below 20 hours and Rs. 6.25 lakhs for detention beyond 20 hours. In certain cases the period of detention was reported to be as long as 100 hours. In order to make an analysis of the demurrage and replenishment charges in the N.C.D.C. collieries, we obtained detailed data regarding the number of wagons loaded, detained and returned empty by each colliery from month to month during the year 1967-68. The overall position is indicated in a summary form in the following table.

TABLE 8: Incidence of wagons detained and wagons returned empty in N.C.D.C. collieries during 1967-68

Coalfields	No. of wagons supplied	No. of wagons loaded	No. of wagons detained	Demurrage charges (provi- sional)	Estimated amounts of Reple- nishment charges
	(In four wheelers)				
I—Karanpura					(Rupees Lakhs)
(a) Three collieries under 5-hour loading rule viz. Bhurkunda, Saunda & Gidi-A	73,548	68,367	28,250	8.0	1.3
(b) Other collieries (i.e. those under 10 hours loading rule) ..	41,392	39,078	10,841	3.0	
(c) Total—Karanpura	114,940	107,445	39,091	11.0	1.3
II—Bokaro & Kargali	88,729	88,324	2,680	4.0	1.7
III—Girdih	10,252	10,263	480		
IV—Central Jharia	401	401	..		
V—Madhya Pradesh	116,627	116,203	7,356		
VI—Orissa	24,191	24,326	8,552		
VII—Maharashtra	7,278	7,278	..		
GRAND TOTAL	362,418	354,240	58,159	15.0	3.0

It will be seen that the incidence of demurrage is the heaviest in the three collieries of Karanpura which are under the five-hour loading rule viz., Bhurkunda, Saunda and Gidi 'A'. These three collieries accounted for about 49 per cent of the total number of wagons detained and about 53 per cent of the total demurrage charges incurred by all the N.C.D.C. collieries taken together. A study was made of the position in respect of all the rakes detained in different collieries in the Karanpura area for a period of two months i.e., November and December, 1967. The results of the study in respect of one colliery, namely Gidi 'A' are mentioned in detail in the statement and explanatory note at Annexure I. The main points which emerged from the study are as under :

- (i) The principal causes of detention of wagons and incurrence of demurrage charges are (a) insufficient loading time, (b) bunching, (c) supply of wagons on any day in excess of the average daily production of the mine and/or day's allotment (d) supply of more than one rake at a time or the supply of a second rake when the earlier

one is already under loading/detention and (e) breakdowns. The incidence of demurrage/detentions due to individual factors varies widely from month to month and colliery to colliery.

- (ii) In the case of three collieries which are under the 5-hour loading rule, the insufficiency of loading time is the most significant factor responsible for detentions in those cases where detentions are not quite prolonged.
- (iii) Very prolonged and chain detentions are invariably associated with "bunching" and "excessive supply" of wagons and the situation is further aggravated when there are breakdowns in the collieries.
- (iv) Once the incidence of "bunching" or "excessive supply" takes place on an appreciable scale, the total period of detention of rakes rises sharply and inevitably. Detention of a rake may then occur for 40 or 50 hours or even more. Further, this may give rise to a chain reaction resulting in detention of several rakes on subsequent days.
- (v) Supply of more than one rake at a time or supply of another rake while one is already under loading also frequently causes prolonged detention of certain rakes because—
 - (a) The usual loading line being occupied by the rake under loading, the second rake has to be placed on another line and subsequently hand shunted to the proper loading line.
 - (b) Interruption is caused in the loading operations due to the entry of pilots in the siding for placement of empty rakes or drawal of loaded ones.
 - (c) There being only one loading point, the rake supplied later has to await the completion of the rake under loading. If the rake under loading is a steam rake and cannot be completed for another 24 hours or longer due to "bunching", the subsequent rake even if slack and even if the slack bunker is overflowing, has to await the completion of the steam rake. The slack rake may then be detained in the siding for 30 or 40 hours even though adequate quantity of coal is available in the bunker.

24. It may be added that to some extent the detention of wagons also takes place because of the negligence or the faulty planning on the part of the collieries concerned. As stated earlier, the loading programmes drawn up by the collieries for submission to the Railways are not always quite realistic in regard to the total number of rakes and also the proportion and sequence of steam and slack rakes. This factor along with the failure of the collieries/Sales Department to get the loading programme for particular days revised or cancelled in good time in keeping with the actual position obtaining the collieries gives rise to demurrage and replenishment charges in a number of cases. However, the precise impact of these factors is difficult to be assessed in the present circumstances when there are a number of complex factors at work most of which are beyond the control of the collieries. It may be added that

in the cases where wagons were detained for very long periods, say, beyond 20 hours, the action of the collieries can hardly be justified because the collieries could very well have returned the wagons empty to reduce financial loss. While to some extent, the demurrage and replenishment charges are inevitable due to certain inherent difficulties in the coal industry including *inter alia* power failure, breakdown of machinery, heavy rains, sudden labour strike etc., the financial loss on this account amounting to about Rs. 18 lakhs per annum incurred at present is excessive and we feel that a large part thereof (i.e., 70 to 80 per cent) can be avoided if the difficulties arising from the existing system of supply of wagons are removed and the free loading time is adequately increased by the Railways and if improvement is made in the present system of finalisation of the loading programmes of the collieries.

Rationalisation Scheme of Coal Movement—

25. Under the Zonal Distribution and Rationalisation Scheme of Coal Movement which was introduced by the Railways initially on July 1, 1953 and was amended subsequently from time to time, a number of restrictions have been placed on movement of coal lower than selected grade coal from different coalfields to specific destinations and directions. The main objectives underlying the Rationalisation Scheme are that (i) cross movements of the same grade of coal do not take place, (ii) long haulage of coal is avoided to the maximum extent possible and (iii) optimum use is made of transport capacity available for movement of coal by rail. Further, it has been reported that some of the rationalisation rules were also meant to earmark certain areas for marketing of coal of different zones considering the quality and the capacity of production and these were the matters which were decided by the Coal Controller in the pre-decontrol era. After the decontrol of production and distribution of coal in July, 1967, a question has been raised whether and to what extent the restrictions placed on coal movement under the Rationalisation Scheme are justified. It has been stressed by the coal industry that the very objective of decontrol on coal will be defeated if movement of coal is not freely allowed on the Railways. It is thus argued that all artificial barriers put by the Railways on coal movement should be removed and it should be left to the forces of demand and supply to regulate movement from any coalfield to any destination. In more recent years the freight on coal moved over long distances has been revised upward by the Railways to a considerable extent and the freight differential may now by itself discourage the consumers in different parts of the country to take supplies of coal from more distant coalfields ignoring the nearby ones. The Railways have already made a number of relaxations in the Rationalisation Rules and further relaxations are reported to be under their consideration. We understand that the main difficulty of the Railways in doing away with all the movement restrictions overnight is that there are a number of sections and transshipment points on the Railways where the capacity is at present limited. The Railways have, of course, undertaken a number of projects for augmenting capacity on all the bottleneck points and sections in a phased manner. It may be helpful if work on such projects is accelerated by the Railways so that they may be in a position to relax all the undue restriction on coal movement as early as possible. In the meantime, the Railways should at least

remove all those restrictions which are not governed by the questions of economic use of Railway capacities and which were earlier imposed at the instance of the Coal Controller to suit the marketing of coal of certain areas particularly of Bengal/Bihar.

26. If the Railways are likely to take some time to complete the review of the entire Rationalisation Scheme and remove all those restrictions which can be withdrawn, there is need to make certain relaxations on an immediate basis to provide wider market to the N.C.D.C. collieries in Madhya Pradesh. These collieries are at present facing difficulties in the disposal of their output of slack coal mainly due to the fact that (i) the movement of coal from these collieries is permitted by the Railways only towards Western India comprising of Gujarat, Maharashtra and certain parts of Madhya Pradesh and for most of the consumers in these areas there is a freight disadvantage up to about Rs. 7 per tonne for the N.C.D.C. collieries as compared with the private sector collieries in Pench and Chanda and (ii) the combined output of slack coal in the N.C.D.C. and the private sector collieries in this region is more than the overall demand of slack coal in the area served by these coalfields under the Rationalisation Scheme. It is, therefore, suggested that movement of coal from Korea and Rewa fields should be allowed beyond Sawai-Madhopur so that these collieries may be in a position to cater to the consumers in Rajasthan. Similarly, if movement from these fields is allowed beyond north of Manikpur including via Naini on the Katni-Satna-Manikpur line, some of the consumers in Uttar Pradesh may be served by N.C.D.C. and other collieries from M.P. region. These relaxations will fully fit in with the principle of rationalisation namely, keeping the lead of traffic to the minimum. As regards the collieries in Jharsuguda sphere namely Banki, Surakachar and Korba, these are at present permitted to supply Loco coal to Southern and South, Central Railways but not to any other category of consumers beyond Waltair. It may be helpful if these collieries are permitted to supply coal to industrial consumers also beyond Waltair. In case movement of coal by the normal route i.e., via Titilagarh-Vizianagram is considered to be difficult due to capacity on the line being limited, it may be considered by the Railways if movement via Nagpur and Wardha can be allowed.

Additional Siding Charges—

27. The N.C.D.C. has intimated that its collieries in Madhya Pradesh, the market for which is already limited under the Rationalisation Scheme, are put to further disadvantage due to the levy of additional siding charges. This makes the problem of sale of coal from these collieries more difficult in comparison with the private sector collieries in this area which do not have to levy such charges. The additional siding charges for different collieries of N.C.D.C. are reported to be as under :—

TABLE 9:—*Siding Charges in N.C.D.C. collieries in Madhya Pradesh*

Korea	..	..	..	Rs. 9 per wagon
Duman Hill	..	..	..	Rs. 12 per wagon*
Jainagar	..	..	..	Rs. 4 per wagon
Kumda	..	..	..	Rs. 9 per wagon
Banki/Surakachar	..	..	..	Rs. 7 per wagon
Korba	..	..	..	Rs. 11 per wagon at siding No. 2&2A
				Rs. 6 per wagon at siding No. 5

*Earlier the siding charges for Duman Hill were Rs. 25 per wagon and these were reduced to Rs. 8 per wagon from 16-6-1967. The charges were, however, increased to Rs. 12 per wagon from 4-9-1967.

We understand that the normal rule for the levy of siding charges on booking of coal which is followed on the Eastern Railway, the Bengal-Bihar portion of the South Eastern Railway and also in the collieries in Madhya Pradesh opened before 1948 is that the total distance of the siding up to the buffer end from the serving station or up to the next station beyond, whichever is higher, is added to the chargeable distance up to the destination and freight is calculated on the overall distance. Thus, the additional distance of the siding gets the advantage of telescopic freight rate on coal with the result that the incidence of siding charges involved in booking of coal is very low. However, in the case of Madhya Pradesh collieries opened after 1948, the South Eastern Railway adopted a different system of levying siding charges which is mostly applied in the case of general goods traffic. According to this procedure, siding charges are worked out separately on the basis of cost of shunting involved and the volume of traffic handled in the siding, and these charges are added to the coal freight calculated on the distance from the serving station to the destination. This system of levying siding charges discriminates against the N.C.D.C. collieries in Madhya Pradesh which were opened after 1948 as compared to the collieries in Bengal-Bihar and also those in Madhya Pradesh opened before 1948. Thus, it is argued that the system infringes section 28 of the Indian Railway Act. We feel that the system is completely contrary to the very policy which dictated the opening of these mines in the Madhya Pradesh area and it is, therefore, essential that the practice which is followed in the case of the overwhelming majority of collieries situated on the Eastern and South Eastern Railways should apply to the N.C.D.C. collieries in Madhya Pradesh as well.

Conclusion—

28. In the preceding paragraphs we have made a review of the transport difficulties which have been affecting adversely the economic working of the N.C.D.C. over a number of years. At times the N.C.D.C. has, of course, been writing to the Zonal Railways concerned regarding some of these problems. However, we have no evidence that in the past vigorous steps were taken by the N.C.D.C. Management to thrash out various issues with the Railway Board at the highest level. It is essential that N.C.D.C. should now discuss all of its problems with the Railway Board in detail. We express the hope that the Railways will look into all the genuine difficulties of the N.C.D.C. and do whatever is possible to afford relief to a sister public undertaking.

ANNEXURE I(a)
Demurrage detentions in Gidi 'A' Colliery during November & December, 1967

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Date of detention	No. of Box wagons/ rakes detained beyond free loading time	Date & time of supply of wagons/ rake	Date & time detentions booked by the pilot	Total No. of detentions	Date & time of withdrawal of rake duly loaded	Demurrage booked by Railways (Rs.)	Causes of detentions (Please also see explanatory note attached).
2-11-67	1 Silk Rake	.. 21.45 hrs.	(i) 13.00 hrs.				
		1-11-67	2-11-67 (ii) 23.00 hrs.	2	7.55 hrs.	2,240.00	
2-11-67	1 Stm Rake	.. 21.45 hrs.	2-11-67 (i) 13.00 hrs.		3-11-67		
		1-11-67	2-11-67 (ii) 23.00 hrs.	2	15.30 hrs.	2,240.00	
4-11-67	1 Silk Rake	.. 23.00 hrs.	2-11-67 (i) 3.30 hrs.	2	3-11-67 15.45 hrs.	1,120.00	Excessive supplies.
4-11-67	1 Stm Rake	.. 3.30 hrs	4-11-67 14.45 hrs.	1	4-11-67 4.30 hrs.	1,120.00	
10-11-67	1 Stm Rake	.. 12.00 hrs.	4-11-67 5.00 hrs.	1	5-11-67 13.15 hrs.	1,120.00	Do.
12-11-67	1 Stm Rake	.. 10-11-67 14.15 hrs.	11-11-67 (i) 23.55 hrs.		11-11-67		
(Sunday)		12-11-67	12-11-67 (ii) 6.25 hrs.	3	20.00 hrs.	3,360.00	Drawn empty due to excessive supply of Steam wagons.
			13-11-67 (iii) 15.00 hrs.		13-11-67		
			13-11-67				

ANNEXURE I(a)—Contd.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
20-11-67	1 Stm Rake	.. 0-35 hrs.	12-30 hrs.	1	12-10 hrs.	1,120-00	Insufficient time effective time available only 4½ hrs. (Refer note).
20-11-67	1 Slk Rake	.. 0-30 hrs.	20-11-67 12-30 hrs.	1	21-11-67 20-30 hrs.	1,120-00	Insufficient time, effective time available Nil. (Refer note).
21-11-67	1 Stm Rake	.. 5-20 hrs.	20-11-67 12-10 hrs.	1	20-11-67 12-30 hrs.	1,120-00	Insufficient time, 6 hrs. 50 mts. only.
23-11-67	1 Stm Rake	.. 2-30 hrs.	20-11-67 (i) 8-15 hrs.		22-11-67		
		23-11-67	23-11-67 (ii) 17-30 hrs.	2	15-40 hrs.	2,240-00	(i) Insufficient time. (ii) "Bunching" of steam rake.
26-11-67 (Sunday)	1 Stm Rake	.. 3-45 hrs.	23-11-67 (i) 14-10 hrs.		24-11-67		
		26-11-67	26-11-67 (ii) 11-25 hrs.	2	2-15 hrs.	2,240-00	(i) "Bunching" of steam rakes. (ii) Excessive supply.
4-12-67	1 Stm Rake	.. 7-00 hrs.	27-11-67 13-30 hrs.	1	28-11-67 3-30 hrs.	1,120-00	Insufficient loading time (only 6½ hrs.)
10-12-67 (Sunday)	1 Stm Rake	16-45 hrs.	4-12-67 8-00 hrs.	1	5-12-67 11-30 hrs.	1,120-00	(i) "Bunching" of steam rakes. (ii) Excessive supply.
12-12-67	1 Slk Rake	.. 19-30 hrs.	10-12-67 2-45 hrs.	1	12-12-67 12-30 hrs.	1,120-00	(iii) Supply (2 Steam rakes on Sunday). Insufficient loading time, only 7¼ hrs.
19-12-67	1 Stm Rake	.. 0-05 hrs.	12-12-67 5-30 hrs.	1	13-12-67 0-50 hrs.	1,120-00	Insufficient loading time (only 5 hrs. 25 mts.)
		19-12-67	19-12-67		20-12-67		

ANNEXURE I(b)
Replenishment Charges for Gidi 'A' Colliery for the months of November & December, 1967

Date	No. of Box Wagon (or Rakes) returned empty	Whether the wagons returned empty were against allotment indents	Amount of replenish- ment charges incurred in (Rupees)	Specific reasons for returning the wagons empty (Please also see explanatory note)
3-11-67	29 Boxes Steam	.. Yes, against allotment	2537-50	Wagon supplies in excess of allotment & colliery's capacity.
4-11-67	29 Boxes Slt	.. Do.	2537-50	Do.
12-11-67 (Sunday)	28 Boxes Stm.	.. Do.	2450-00	Wagon supplies in excess of colliery's capacity.
25-11-67	29 Boxes Stm.	.. Do	2537-50	(i) 'Bunching' of steam rakes. (ii) Excessive supplies.
28-11-67	29 Boxes Stm.	.. Do	2537-50	(i) Severe 'Bunching' of steam rakes. (ii) Wagons supplies in excess of allotment & colliery's capacity.
30-11-67	29 Boxes Stm.	.. Do.	2537-50	(i) 'Bunching' of steam rakes. (ii) Excessive wagon supplies.

NOTE — Further, 34 Box wagons steam & slack were returned empty during Nov. & Dec. '67 in a piecemeal fashion in different rakes at the rate of one or two wagons per rake due to non-availability of sufficient time or due to severe 'bunching' and excessive supplies etc. The replenishment charges for these wagons amounted to Rs. 2,975.

ANNEXURE I(c)

Explanatory Note on causes of detentions in Gidi 'A' during Nov. and Dec. 1967.

			Nov. '67	Dec. '67
1. Total despatches—Tonnes	..	..	46,000	60,000
2. Total Production—Tonnes	..	..	52,000	61,200
3. No. of working days	..	..	25	26
4. Average daily production of coal—tonnes ROM	..		2,100	2,350
5. Average daily production steam coal—tonnes	..		1,250	1,400
6. Average daily production of slack coal—tonnes	..		850	950

November, 1967 was a bad month for Gidi 'A' due to continuous labour trouble and endless labour disputes resulting in very poor discipline and production. The problem was further aggravated due to prolonged incidence of severe "bunching" and excessive supplies as a result of which as many as 6 rakes had to be returned empty and yet several others suffered detentions.

1-11-67 to 4-11-67—The colliery started the month with practically empty bunkers and 1-11-67 was a holiday due to "DIWALI" festival. Also there was no allotment for 1-11-67. But the colliery was allotted and supplied 1 steam and 1 slack rake every day for the period 1-11-67 to 4-11-67 which was much in excess of even the normal daily production. As a result 32 boxes steam and 29 boxes slack had to be returned empty and in all 6 detentions were incurred, 4 on 2-11-67 and 2 on 4-11-67. The balance six rakes were loaded by the colliery the last steam rake being drawn out at 4.30 hrs. on Sunday the 5th. An idea of the congestion in the colliery siding can also be had from the times of supply and drawal of rakes indicated in the statement at Annexure I(a).

10-11-67 (Steam)—From 7-11 to 10-11 again the colliery was supplied one rake of steam every day which was in excess of the colliery's average daily production of 1250 tonnes/day. The first three rakes were, however, cleared without detention with the help of production of 6/11 on which day no steam rake was supplied. The last rake supplied on 10-11-67 at 12.00 hrs. however, suffered one detention at 5.00 hrs. on 11-11-67 and was cleared duly loaded on 13.15 hrs. on 11-11-67.

12-11-67 (Steam) (Sunday)—Despite the bad position of steam coal availability on 11-11-67 as explained above, one steam rake was again supplied on Sunday the 12th Nov. at 14.15 hrs. The rake was offered for empty haulage at the time of supply itself but the Guard preferred not to draw out the empty rake and booked it under detention at 23.55 hrs. on Sunday itself. The same thing

was repeated by the Pilot Guard at 6.25 hrs. on 13-11-67 and 15.00 hrs. on 13-11-67 and the rake was finally drawn empty at 20.00 hrs. on 13-11-67. The matter has been taken up with the Railways to waive the demurrage in view of these facts. In the meanwhile another steam rake supplied on 13-11-67 was, however, duly loaded without any detention.

20-11-67 (One slack one steam)—Both these rakes were supplied in the night of Sunday the 19th: at 0.30 hrs. though there was no allotment. This Sunday was also a declared maintenance day. Loading of slack rake was, therefore, commenced at 8.00 hrs. on 20-11-67 but loading could not be completed as only $4\frac{1}{2}$ hrs. time had been availed when the Pilot called at 12.30 hrs. on 20-11-67 and showed both the rakes under detention.

21-11-67 (Steam)—The Colliery got only 6 hrs. 50 minutes time for the loading of this rake when the Pilot called at 12.10 hrs. This was insufficient.

23-11-67 (Steam)—From 16-11-67 to 22/11 the colliery had been supplied only 2 slack rakes against 5 rakes of steam causing "bunching". The slack bunker was, therefore, full. The allotment for 23-11-67 was one steam and one slack rake. The colliery naturally wanted to load the slack rake first. But the steam rake was supplied first at 2.30 hrs. The colliery had no alternative but to start loading it with slack coal to relieve the congestion in the slack bunker. A further difficulty arose due to the fact that this particular slack rake required transshipment enroute and, therefore, the use of wagons with down falling type doors only. The steam rake supplied contained only 20 such wagons and the balance had to be drawn from the slack rake supplied at 8.15 hrs. The Pilot which supplied the slack rake showed the steam rake under detention after only 5 hrs. 50 mts. from the time of supply of the rake. The loading of the steam rake was actually taken up after the completion of the slack rake. When the Pilot next arrived at 17.30 hrs. on 23-11-67 it was offered the slack rake but it showed the steam rake again under detention i.e. 9 hrs. 15 mts. after the supply of the slack rake. It may thus be seen that in this case the rake suffered two detentions and remained in the siding for 37 hrs. though actually the effective time available for loading was less than 10 hrs.

26-11-67 and 27-11-67—"Bunching" of steam rakes continued even after 23-11-67 as no slack rake was supplied on 24th, 25th, 26th and 27th. As a result, the slack bunker started overflowing and the feed of coal into the coal handling plant also suffered. At the same time steam rakes continued to be supplied uninterruptedly—6 nos. from 20th to 26th; which would need 7 days average production for loading. Under the circumstances the steam rake supplied on the 25th had to be returned empty and the rake supplied on 26/11 at 3.45 hrs. could only be completed with the help of the production of 27/11 after incurring two detentions.

- 28-11-67 and 30-11-67—The situation went completely out of control when the colliery was again supplied 2 rakes of steam on 28-11-67 against allotment of one rake and further one rake steam on 29th and 30th each day. In addition, 2 rakes slack were supplied on 28/11 and one rake slack on 30-11-67. All the three slack rakes were loaded by the colliery but out of the 4 steam rakes, 2 had to be returned empty and in all 7 detentions occurred during these 3 days due to "bunching" most erratic and highly excessive supplies. *This case illustrates how erratics the wagon supplies can be and how much demurrage and replenishment charges they can cause.*
- 4-12-67 (Steam)—Only 6½ hours time was available for loading this rake till the arrival of the Pilot which is inadequate. Further 4/12/67 being a Monday, colliery work started at 8.00 A.M. while the rake was supplied at 7.00 A.M. thereby further reducing the available loading time by one hour.
- 10-12-67 (Sunday) (Steam)—The colliery was supplied 2 rakes of steam on Sunday the 10th Dec. against allotment of one rake. Besides, during the period 6-12-67 to 10/12/67 the colliery was supplied only one rake of slack against 5 rakes of steam thus resulting in "bunching" and consequent over flowing of the slack bunker which in turn hampered the production. One of the steam rake supplied on 10th was, therefore, detained and could only be cleared out on 12-12-67 at 11.30 hours.
- 12-12-67 (Slack)—Only 7.15 hours including a change of shift (at 00.00 hours) as available for loading the rake which was insufficient.
- 19-12-67 (Steam)—Only 5 hours 25 mts. time was available for loading the rake when the Pilot called. This was insufficient.

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CHAPTER XIII

FACTORS OF PRODUCTION—MANPOWER, STORES AND STORES PURCHASE

While the volume of sales orders and the transport facilities for despatches from pithead determine what each colliery should seek to produce, the production at the colliery itself depends on a number of factors. In the first place it would depend on the availability and accessibility of coal deposits and the stage in the development of the colliery. In particular, in the cases of underground mines the extent of production depends a great deal on the number of coal faces which are developed and available for the extraction of coal. When production has to be stepped up, more coal faces have to be developed. In the opencast mines there is greater flexibility for enlarging production at relatively short notice. The production also depends on the manpower employed at the colliery on extraction as well as on the arrangements for movement of coal to the despatch point. In addition, the rate of production depends on the equipment available and deployed. These are the major factors of production. The skill in management consists in making available at the colliery all these factors of production in the right proportion and their optimum deployment so as to yield requisite production at minimum possible costs.

2. We have referred to recent assessment made by the management of the N.C.D.C. that provided all the equipment presently deployed on the project remains in working order, it has the annual production potential of 16.97 million tonnes. It is believed that in making this assessment the management of the N.C.D.C. has taken into account the potential available in the respective collieries, and particularly in the underground mines. While the N.C.D.C. has set out to build up a much larger production potential both underground and opencast, in actual implementation of its projects the Project Officers have come across a number of difficulties owing to actual conditions of working being different from those postulated in the preparation of the projects. In a number of underground mines production has been limited to only one or two of the coal seams instead of all the seams referred to in the projects. The potential available in these mines, therefore, is smaller than what was assumed for the project. In other cases, the limitations of geological conditions have now made it clear that the amount of coal that can be extracted from these mines is much less than what was anticipated when preparing the project. In a number of mines, quality of coal in some seams has been found to be lower and as the demand for the lower grade coal is small, production had to be restricted to the better grade seams. These factors of diversion from earlier project reports have been duly discounted in this latest assessment of the N.C.D.C. management in placing its production potential at 16.97 million tonnes. As stated earlier, included in this figure is 2.54 million tonnes from mines which are now under development, which, when fully developed, are expected to give 7.76 million tonnes.

3. In our questionnaire to the Project Officers and Area General Manager we had asked them to indicate if they had surplus personnel at the project. Except for two or three projects, the project officers have all replied that for the work in hand and for the production expected of them, they have no surplus labour. The large surplus manpower at Giridih group of collieries where the mines are nearing exhaustion is well-known. At one time, this group of collieries was employing as many as 9,400 persons. Efforts have been made since 1965 by offering special inducements and by arranging transfers to other collieries to reduce the strength of labour at these collieries. The number has come down to 4,956 since March, 1964. Two other projects which were reported to have surplus labour are Korba and Kargali. In both cases, the surplus is in respect of coal loaders. With the mechanisation of loading arrangements this labour has become surplus. In both cases, efforts are being made to dispose of the surplus. In Korba 164 workers were retrenched in December, 1967 after payment of compensation.

4. Thus in the view of the project officers there is no surplus manpower. It must be assumed that their views are based on the expectation that they would be called on to achieve the targeted production, and the fact that the production is actually considerably below the target does not seem to have been taken into due consideration by them. It is equally possible that their assessment is based on the current level of productivity. They have not taken into account the possibility of saving in manpower by improving the output per man-shift at their collieries by better deployment of equipment and by greater use of mechanised methods. A number of project managers have reported that it was possible to increase the output per man-shift if certain inducements are provided. This would again indicate that there is room for increasing productivity and thereby limiting manpower at the project.

5. We have studied the data regarding the output per man-shift at the collieries. As stated earlier, in almost all the old State collieries the output per man-shift is low. The lowest O.M.S. are reported from the two collieries in Giridih and two of Orissa. The low O.M.S. of the old State collieries may be attributed to the fact that most of the operations at these collieries are manual. Mechanisation introduced at Bhurkunda, Bokaro and Kargali has moderately improved the O.M.S. at these collieries. Only at Kurasia O.M.S. is higher than average; this is partly due to mechanisation and opening out of an open-cast mine. In the new collieries, the underground mines of Karanpura area have generally low O.M.S. whereas the better natural conditions at the mines in the M.P. area and the greater use of mechanisation in these areas, have resulted in a greater increase in O.M.S. The average O.M.S. for all the underground mines was only 0.50 tonnes for 1966-67, even though the underground mines in Madhya Pradesh area have considerably higher output per man-shift. The average for underground mines has remained constant over the last several years, thus indicating that there is actually a fall in the O.M.S. in some of the older underground mines.

6. The average O.M.S. for all mines taken together was 0.49 tonnes in 1961-62 and it had risen to 0.71 tonnes in 1965-66 i.e. at the end of the Third Plan. In 1966-67 it dropped to 0.66 tonnes. The fall is due to lower production

and less off-take during that year. In particular, the O.M.S. of opencast mines went down from 1.06 in 1965-66 to 0.93 tonnes in 1966-67. In 1967-68, there has been again an increase in the O.M.S. of underground mines to 0.53, that of opencast remaining at 0.93, thereby giving an average of about 0.75 for underground and opencast mines, taken together.

7. At the opencast mines the output per man-shift has been higher. This is due to larger use of mechanised equipment. The average of about 1 tonne which the N.C.D.C. has achieved in 1965-66 is, however, considerably below the average output per man-shift in the opencast mines in many developed countries. For many projects, it is also below the O.M.S. which was expected when the projects were planned. This smaller O.M.S. for the N.C.D.C. in the opencast mines is due firstly to frequent break-downs in machinery, secondly, to the production being deliberately restricted to what can be transported or sold, and thirdly to the inefficient use of the machinery. There is also reason to believe that more men are employed for the operation of dumpers and for shovels in India as compared to those in many other countries. The system of helpers for shovel and dumper operators, as obtained in the N.C.D.C. quarries and in other places where earthmoving machinery is used in India, increases the man-power complement and reduces the output per man-shift.

8. Almost at all projects, there is scope for a large improvement in productivity by raising production without raising the man-power, by better deployment, and more intensive use of machinery, provided requisite sales and transport facilities are arranged, for the larger production.

9. To assess whether the man-power employed is excessive or not, a comparison can also be made between manpower needs as contained in the project report and the actual man-power employed at the project site. Such a comparison is possible only for new projects or for expansion for which project reports were prepared. In the case of old State collieries there are no such project reports. A comparison between the project reports and the actual employment, therefore, does not help in getting an overall picture. In regard to the mines for which project reports exist, there are other difficulties in making a proper comparison. We have noticed that in a number of cases, the project reports themselves were not properly drawn up. More particularly was this the case in respect of Second Plan Projects. Secondly, there were numerous deviations in the implementation of those projects. What was expected to be done by mechanical means, was undertaken manually with the result that more manpower was employed than what was indicated in the project report. In certain project reports, the man-power needs of certain processes like loading of coal on to the railway wagons were not specifically indicated, the corresponding expenditure being shown as a lump sum. In these cases again, the project reports do not give a comparable basis for the assessment of the man-power. For all these reasons, effective comparison becomes difficult. In answer to our questionnaire, an attempt was made by A.G.M. Karanpura area to compare manpower estimates of the project report, with actual manpower employed at the collieries of that area, taking into account the effect of demechanisation. His comments and the comparative statement furnished by

him is added at annexure to this chapter. His conclusion is that if the factor of demechanisation is taken into account, there is no excess of manpower, as compared to the provision of project reports.

10. However, even a rough comparison shows that in a number of collieries there is room for economy in man-power. In many of these projects, while the production is nowhere near the target level, the actual employment seems to be very near, and at a number of places it even exceeds the number given in the project report. We suggest that the matter should be more fully gone into by the teams which we have separately suggested for revising the project reports and bringing them up-to-date.

Stores and Store Purchase—

11. All the Project Officers and Area General Managers to whom we sent our questionnaire have been unanimous in emphasising to us that the production is hampered by the delays in the supplies of stores and spare parts. We have noticed already how earthmoving machinery and more especially, dumpers at several opencast mines have remained under breakdown for long periods for want of attention and spare parts. The idleness and under-utilisation of machinery has also been brought out in the two statements which have been included in chapter VI, dealing with equipment. Area General Managers and more especially the Project Officers of the collieries that we visited greatly emphasised the difficulties arising from the delays in the supply of stores and spare parts. Typical of the comments made before us by various Project Officers is the following extract of a memorandum presented to us by the Project Officers of three collieries of Madhya Pradesh at the end of April, 1968.

“Till a few recent months the most important factors restricting production and efficiency have been lack of orders for coal and Railways’ inefficiency to supply wagons. But with some improvement of late in these two factors, inadequate and abnormally delayed procurement action of stores and spares is now proving to be the most serious handicap frustrating the efforts of the collieries. The difficulty is not confined to materials involving import from foreign countries; procurement is very slow and ineffective even in respect of such of the material available in plenty off the racks from a multitude of dealers spread all over the country.

Movement of indents by itself takes a very long time and some have not moved to the purchase section for over a year. Even in respect of proprietary items, orders have been placed after a lapse of two years.

As a result, many of the requirements of even consumable materials have been met through local purchase. Examples are, petrol, coal cutting machine picks, drill bits, electric bulbs and insulating materials. But a colliery cannot be run by local purchases alone. Even here severe restrictions have recently been imposed curtailing the powers earlier delegated to the project officers.”

12. Similar comments have been made by many other Project officers. Some of them have suggested that powers of local purchase should be enhanced so that the production is not hampered by any shortage of stores in stock or

by the delays in the purchase action. Some others have also pointed out that the delays in the purchase of stores and spare parts is responsible for the attitude on the part of the project officers to stick to large inventories and not to declare surpluses even when stores have been in stock and remained unused with them over a number of years. Another consequence is the increase in the number of emergent indents which the collieries send to the purchase office, demanding deliveries within four to six weeks. A large number of such emergent indents has the effect of dislocating the work at the purchase office. We understand that out of the 470 indents sent by the collieries to the purchase office during the period 21-9-66 to 15-8-67 as many as 465 were marked emergent.

13. We arranged for the scrutiny of some two or three cases of purchase. These bring out the fact that there have been delays owing to the various procedures which have to be complied with.

14. The Chief Purchase Officer has informed us that he receives indents from as many as 40 different Indenting Officers. These indents are channelised through the Area General Managers to either the Controller of Stores or the Chief Purchase Officer. In respect of spare parts, the indents are first sent to the Chief Engineer (E & M) who is to consolidate them and then send them to purchase office. It is not clear what scrutiny, if any, is exercised either by Area General Manager through whom indents are sent or by the Chief Engineer (E & M) who consolidates them when they relate to machinery spare parts. But these processes involve a great deal of time. Some time is taken by the indenter in obtaining a certificate as to the budget classification and the availability of finance. Where indents are incomplete, the purchase office has to enter into correspondence with the indentors to obtain clarifications. Similarly if the purchase value in any case exceeds 20% of the indent value, a back reference to the indenter is necessary. A large number of indentors located at far-flung places makes it difficult to obtain their replies in time.

15. The Chief Purchase Officer has also informed us that final payments to suppliers sometimes get delayed owing to the time taken by the consignees viz. the Project Officers, in acknowledging receipts and the final inspection of the consignment. Such delays, according to the Chief Purchase Officer, often add to the difficulties in getting suppliers to tender for the supply needed by the N.C.D.C.

16. The C.P.O. has also told us that since November, 1966, when the DGS&D removed the N.C.D.C. from the list of the Direct Demanding Officers against the DGS&D contract, the suppliers have been somewhat reluctant to make supplies to the N.C.D.C.

17. The reason why the DGS&D removed N.C.D.C. from the list of Direct Demanding Officers is that the Corporation raised certain objections on the payment of the bills for the supplies made to the N.C.D.C. and delayed the acceptance of debits raised for these purchases. It is possible that the bills were not fully documented. Nevertheless, the matter should not have been allowed to get to a stage where the DGS&D felt compelled to remove N.C.D.C. from the list of Direct Demanding Officers, thus depriving the Corporation of an important facility which was available to it. Obviously

the purchase office would have taken more time to replace this facility by direct deals with the suppliers. The Chief Purchase Officer explains that suppliers themselves were unwilling to make the rate contracts with the N.C.D.C. direct.

18. We do not think that the increase in the local purchase powers as suggested by a number of Project Officers or by the Area General Managers provides the right answer. For a large organisation like N.C.D.C. important purchases must be made centrally, the local purchase powers being availed of only in times of real emergency, where the production would suffer a set back, if local purchase was not made. If each of the projects starts making its own purchase of important stores, they will come into competition with one another, raise prices and incur additional expenditure all around. The overall advantage, therefore, lies in reviewing and streamlining purchase arrangements and the purchase procedure and not by raising the local purchase powers of the local officers.

19. Delays seem to arise mainly because there is a large number of indenting officers who have to be frequently consulted in the course of the purchase action. Secondly, the Project Officers who place the indents are not experts in stores management; this may account for the frequency with which indents as received are found to be incomplete and/or requiring further clarification. If the number of the indenting officers is reduced, it should be possible to get over this difficulty.

20. We understand that the N.C.D.C. is considering the establishment of a number of regional stores. The proposal is that the collieries should retain in their stocks, not more than one month's requirements of stores which they frequently need; the rest of the stocks should be held centrally in the regional stores. To avoid possibility of double handling and the expenditure involved in it, bulk commodities could be stored at the collieries but should be on the charge of the regional stores and not in the colliery stores. The replenishment of the colliery stores as and when its stock falls below a month's supply should be the responsibility of the officers in charge of the regional stores. Similarly the Regional Stores Officer should be responsible not only for making timely indents for stores held by him, but also for maintaining adequate stocks in his stores to enable him to meet without delay, the replenishment demands of the colliery stores. Moreover, he should be responsible for maintaining an adequate and up-to-date inventory of his stocks, for the periodical stock-taking and for a regular scrutiny of stocks to determine that stores and spare parts not in frequent demand are declared surplus and disposed of. These stores officers in-charge of regional stores should be persons with special knowledge of store-keeping and materials management. They should be in touch with the Project Officers and Area General Managers so that the needs of the projects are fully reflected in their management activities. They should also be in touch with the financial and accounting officers who maintain price ledgers, so as to maintain a proper check on inventories and surpluses.

21. We consider that this proposal should be given effect to without delay. If the regional stores officers are thus made responsible for indenting and arranging supplies through the centralised purchase organisation, the

number of indenting officers which the purchase office has to deal with will be reduced to say about 8 or 10. It should be possible to provide quick means of communication between the purchase office and these indenting officers so that any clarification required on indents or any consultations that are needed in regard to specifications etc., are quickly resolved. Both the regional stores and the purchase office could make use of the wireless communication facilities available at various N.C.D.C. offices for this purpose.

22. Another advantage of this system is that as officers who are experts in stores management would be responsible for indenting and arranging for supplies, the nomenclatures and specifications of various stores and spare parts would become standardised and frequently the clarifications that are now sought for specifications etc., would become unnecessary, thus leading to further saving in time.

23. The Corporation is separately considering the proposal for setting up a combined department for stores and purchases. In our first report, we recommended that the two posts of Controller of Stores and the Chief Purchase Officer be combined. The Head of the Department in combined charge of stores and purchase should have two competent deputies—one responsible for stores and store arrangements and another responsible for purchase. At present purchases of certain articles are made by the Chief Purchase Officers whereas the Controller of Stores is responsible for the purchase of steel, petrol oil, lubricants, explosives, AC sheets and several other items. We have not understood the reasons for this division of responsibility for purchase, which was made by an order issued in June, 1964. With the amalgamation of the stores and the purchase departments, it should be possible for all purchases to be made by the purchase section instead of being distributed between the purchase and the stores sections.

24. We have also recommended in our First Report that the purchase office should make a large number of rate contracts for articles which are in common use in the coal mines. The Project Officers have suggested that there should be more than one rate contract for each commodity so that supplies are obtained from the nearest source and if one supplier defaults, it would make it possible to get it from another. We have already agreed to this suggestion. Further, we consider that whatever difficulties there may have been in the past, attempts should be made to revive the earlier position whereby N.C.D.C. becomes a direct demanding office for the DGS&D rate contracts.

25. While the Project Officers have complained of shortage of stores as impeding production, the balance-sheets of the N.C.D.C. indicate that its inventories are large. For the last three years the total inventories of stores were as follows :

					Stores and spares in depots.	Store & spares in transit.
					(Figures in lakhs of rupees)	
1-4-65	..	..	..	..	1,336.78	76
1-4-66	..	..	..	..	1,414.87	67
1-4-67	..	..	..	..	1,498.00	179

On the basis of current consumption, the stocks on 1-4-65 represent an equivalent of 18.7 months' consumption, on 1-4-66, equivalent to 17.9 months' consumption and those on 1-4-67 equivalent to 21.9 months' consumption. These figures, by any standards, are very high. Even if it is conceded that a large part of the stores and spare parts required for the maintenance of the machinery and equipment is imported, and that these take anywhere between 12 months and 2 years to procure, the stocks of the order indicated above cannot be justified by the current rates of consumption.

26. This apparent contradiction between large stocks shown in the balance sheet and the complaints made by the local officers against inadequate stores and the delays in supplies, needs to be reconciled. It appears that there are a number of spare parts items in stores which were obtained in the early years along with the main equipment which are not being found to be of use. These have remained in stock. Some of these could be standby or insurance items which are required only for emergency repairs or break-down. But a large part could be regarded as surplus to the present requirements. The attempts made so far to locate these surpluses and to dispose them off have been wholly inadequate.

27. Secondly, it is possible that the book stock shown in the balance sheet, which is derived from the priced stock ledgers do not represent the actual physical stocks held in the various depots. In the N.C.D.C., whereas the colliery depots maintain only physical stock registers, the priced stock ledgers are maintained in the area accounts offices. Separately, when we noticed that a large balance is shown in stores in transit at the end of the year, (amount shown in the balance-sheet for 1966-67 was as much as Rs. 179 lakhs), we had certain investigations made at one of the area accounts officers. These investigations showed that the posting of receipts and issues in the priced stock registers and the reconciliation of the credit and debit in respect of stores despatched from one depot to another were also greatly in arrears. In fact, it is one of the major lacunae in the N.C.D.C. that the postings in priced store ledgers are greatly in arrears, and these ledgers are in a confused state. We had occasion to comment on this in our First Report, when we referred to the difficulties in reconciling financial and cost accounts. Arrears in the maintenance of price stock ledgers make it difficult to maintain a proper control on inventories. Price ledgers provide an important check on physical inventories, and in their absence it may not be easy to detect losses by theft or other reasons. We would not be surprised if the large inventory balance shown in the balance sheets includes, in fact, value of stores which have already been utilised either on the capital projects or on production, and the real inventory balance is much less in value than what is shown and certified as book balance in the balance sheets.

28. A determined effort is, therefore, needed to improve the store accounts. The proposal to set up regional stores and to limit the colliery stocks to maximum of one months' need of its production should facilitate the proper maintenance of the store ledger accounts. Mechanical system of store accounts has been introduced by the N.C.D.C. as early as 1965; but the supporting preparatory arrangements have not received the attention required. Not all the store items

have been codified till now and for some items the depots have been using earlier code numbers. The store keepers themselves are not properly trained in the use of code numbers nor have the Area Accounts Officers ensured that the various processes needed for the full use of the mechanical system are complied with. The result is considerable confusion in store classification. These have to be sorted out and procedures established for the effective use of machine accounting. We suggest that immediate attention should be given to rectify the position.

29. About the same time that it was decided to introduce mechanical system of accounting of stores, special steps were taken to introduce a scientific system of indenting classification of stores, inventory limits etc. While a detailed store manual has been drawn up, it has not yet been implemented. The implementation of this manual should also help considerably in reducing the inventories to reasonable proportions. If the N.C.D.C. is to streamline its production methods and its organisation, the reorganisation of stores and purchase on the lines indicated in this chapter, the introduction of scientific system of indenting, purchasing and of maintaining of priced ledger books no delay.

30. We recommend that the N.C.D.C. should appoint a small committee of competent officers to draw up a programme for undertaking and completing all these improvements within a period of say, next one year to eighteen months. The Committee should, if necessary, have access to expert advice in stores management in laying down the precise steps to be taken. Whatever measures are thus evolved, the N.C.D.C. should ensure that all these improvements are carried out, during the stipulated time, both by the officers of the stores and purchase departments and also by the Colliery Managers, Project Officers, Area General Managers and the Accounts and Finance Officers.



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ANNEXURE TO CHAPTER XIII

Extract from the report of Area General Manager, Karanpura

As a result of demechanization at the underground coal face by withdrawing Shuttle Cars and Loaders, this work has to be done by manual loaders recruited specially for this purpose. Category-wise provisions of the Project Report were, therefore, infringed not only in respect of the manual loaders but also in respect of such junior supervisory staff as are required to cater to the needs of such a large strength of piece-rated workmen. In some mines, due to swing of contours and also due to production dropping below economic levels, belt conveyors were replaced by tubs and tracks and consequently, the strength of Trammers, Line Mistries and Line Mazdoors increased.

I am enclosing a statement showing the actual strength of labour and as provided in the Project Report and it will be seen from this statement that in spite of the above deviations the overall provisions of the Project Reports have not been infringed. In fact, if all the piece-rated loaders whose employment became unavoidable due to demechanisation are eliminated from the list, the existing strength of workmen is well within the Project Report Provisions.

NATIONAL COAL DEVELOPMENT CORPORATION LIMITED KARANPURA FIELD

Statement showing Average Numbers of Persons employed

Name of Projects	Project Report Provision (including indirect provision)	Actual Employment						Production as per Project Report (million tonne)	Actual 1967-68
		Piece rated Loaders			Total including Piece rated Loaders				
		1964-65	1965-66	1966-67	1964-65	1965-66	1966-67		
1. Bhurkunda (including Old Bhurkunda)	4,149	1,448	1,519	1,512	4,427	4,280	4,192	1.30	0.69
2. Gidi 'A'	3,956	1,724	1,322	1,201	4,235	3,776	3,583	1.70	0.67
3. Gidi 'C'	722	..	..	..	382	372	388	0.40	0.27
4. Argada	664	134	134	148	404	395	410	0.12	0.04
5. Saunda	2,599	958	928	853	2,818	2,741	2,584	1.20	0.34
6. Sayal ..	1,598	1,137	1,172	1,168	2,300	2,381	2,444	0.50	0.39
7. Bachra	1,236	897	873	823	1,746	1,726	1,710	0.50	0.20
Total	14,924	6,298	5,944	5,705	16,312	15,671	15,311	5.72	2.60

Committee's comment : The above statement does not take into account the fact that actual production at all these collieries is less than what was envisaged in the project estimate. The estimated target production and actual production in 1967-68 is inserted in the statement.

CHAPTER XIV

SPARE PARTS AND WORKSHOP FACILITIES

Inadequate supplies of spare parts has been the one single reason why a large number of machines both for underground and opencast mines has remained idle and under break-down over long periods. Almost all these machines are imported. The manufacture of the equipment required by this industry has not yet developed in the country except in the case of coal cutting machines for which spare parts are made in India. Spare parts of other machinery required for its maintenance have to be imported.

2. The position has been particularly difficult in regard to the earthmoving machinery used on opencast mines. The earthmoving machinery purchased by the N.C.D.C. has been of different makes and different sizes. There are as many as a dozen different types of shovels and dumpers in use. The types purchased were determined by the source of foreign exchange available as well as by the requirement of the particular tasks which the earth-moving machinery was to undertake. No thought was given to the standardisation of the equipment purchased. When proposals for raising the targetted capacity of Kathara mines from 1.5 million tonnes to 3 million tonnes was approved, arrangements were made for ordering larger size shovels and dumpers for that mine. Parts required for different types and sizes of machines are frequently not inter-changeable. Looking back it is possible to say that by ordering different types of machines the N.C.D.C. has increased its difficulties in regard to the supply of spare parts.

3. As usual, spare parts to the value of 15% of the cost of machinery were ordered by the N.C.D.C. along with the order of the equipment. As mechanisation was newly introduced there was no past experience as to the precise nature and quantum of spare parts needed for keeping the machines in proper order under Indian conditions. The N.C.D.C. had necessarily to depend on the manufacturers to prepare the lists of these initial spares. The manufacturers or their agents again had no past experience of the use of such machinery in India, on coal mining projects. Their lists did not, therefore, represent the actual requirements as found by the subsequent experience. The manufacturers and their agents often took a long time to prepare the lists. Not all supplies were manufactured by the suppliers of the machines. Many had to be obtained from other manufacturers. Frequently there were delays in making the supplies available. In certain cases, some of these parts have not been received even now, whereas the machines were obtained and put into use several years ago.

4. As the experience of the N.C.D.C. officers grew, they were able to comment on the suppliers' list more meaningfully and even to compile their own lists of requirement to suit the Indian conditions. However, this experience took several years to build up.

5. Part of the supplies of spare parts obtained particularly in the earlier years have remained unutilised over a period of years. The analysis made by the Controller of Stores in one colliery shows that as many as 817 items of spare parts valued at Rs. 2 lakhs had no consumption at all for three years or more. At two other collieries, the value of such items exceeded Rs. 8 lakhs and 13 lakhs, respectively.

6. The working conditions in which machines are deployed also effect their spare parts needs. If the haul roads are properly graded, dumpers can move over them without a great deal of strain on their fast moving components like tyres, engine, transmission gears, etc. Consequently, break-downs are more frequent if the dumpers are made to do service over rough roads and steep gradients. Provision of adequate working conditions is therefore, an important determinant in the employment of plant and machinery.

7. Subsequent requirements of spare parts as they arose, were, in initial years, obtained by the N.C.D.C. primarily through accredited agents in India of the manufacturers of the equipment. In the initial years, when these agents were able to obtain adequate import licences, there was not a great deal of difficulty in obtaining the supply of spare parts. The method of doing so was to place rate-running contract with the manufacturer's agents, either direct by the N.C.D.C. or through the DGS&D. The only difficulty that often occurred during this earlier period was in respect of spare parts whose import was prohibited on the ground that there was indigenous manufacture. In the case of such spare parts the evidence of non-availability of indigenous supplies had to be furnished to the importlicensing authorities before these were allowed to be imported, this procedure often takes a long time.

8. Difficulties as to the import of spare parts began to be acute when after 1963-64 the foreign exchange quotas of the established importers were reduced. The accredited agents of the foreign manufacturer began to ask for allocations of foreign exchange for fulfilling the orders placed by the N.C.D.C. It was then that the Corporation was required to evolve procedure for making other arrangements for the import of spare parts. The Corporation has pointed out to us that the foreign exchange allocations made by the Government were meagre compared to their demands. The position was more acute in respect of opencast machines than in regard to the underground machines for which a variety of spare parts could be obtained indigenously. The amounts of foreign exchange (from free resources and rupee payments) allocated to the N.C.D.C. for the purchase of spares for opencast machinery are indicated below—

							Rs. in lakhs
1962-63	..	..	..	..	..	..	42.75
1963-64	..	..	..	..	..	..	22.40
1964-65	..	..	..	..	..	..	8.78
1965-66	..	..	..	..	..	..	2.95
1966-67	..	..	..	..	..	..	25.22

This drastic reduction in the foreign exchange allocations for spare parts reflects the actual scarcity of foreign exchange which developed since 1963-64, and continued till 1966-67. The allocations for spare parts were more difficult to obtain than those for equipment, as the latter was often available under some aid programme or other. Under the laws of the countries who offered aid for capital equipment, the aid funds * could not be utilised for the import of the spare parts. The position changed only some time in 1966 when supplies of spare parts were allowed** to be liberally imported, from certain countries and against their aid programmes. Imports of certain parts are banned on the ground of their indigenous availability. The Corporation tells us that in respect of at least some of these banned items, the indigenous suppliers were unable to provide the supplies.

9. During this period of scarcity of foreign exchange, it was no longer possible for the N.C.D.C. to obtain their supplies from the agents of foreign manufacturers under their normal import licences and foreign exchange allocations and import licences had to be obtained specially for each order and frequently the process of obtaining them took several months and some time years. Consequently, delays occurred in obtaining these spare parts. It is possible that because of these procedural delays and lack of sustained efforts to resolve the various problems connected with foreign exchange allocations and imports, even the small amount of foreign exchange that was allocated was not fully availed of. We have not found it possible to ascertain if all the foreign exchange released for the import of spare parts, meagre as it was, was actually utilised.

10. The N.C.D.C.'s experience with the import of spare parts during the last few years has not, therefore, been happy. Now that the imports of spare parts have remained liberal since the latter part of 1966, the N.C.D.C. should have another look at its procedures in order to see that these do not stand in the way of making the full use of such foreign exchange as is made available to it for the import of the much needed spare parts.

11. Another line for investigation is to see how indigenous supplies of these spare parts could be promoted. The Mining and Allied Machinery Corporation at Durgapur has been specially established to cater to the manufacture of mining equipment. There should be a very close liaison between the N.C.D.C. and the MAMC and HEC† at Ranchi in regard to the manufacture of the mining equipment. Similar coordinating efforts are necessary in order to secure from the Bharat Earth Movers and other manufacturers of earthmoving machinery early deliveries of equipment. The N.C.D.C. has pointed out to us that for certain orders placed by the Corporation on the MAMC supplies have been inordinately delayed and in one or two cases the equipment supplied has not been found to be suitable and conforming to the safety regulations. These are problems which need to be quickly resolved by mutual consultation between

*It has now been ascertained from the Ministry of Finance that complete engines could have been purchased, but not parts of engines or other parts of the equipment such as tyres.

**In September, 1967 we were surprised to find that senior technical officers of the N.C.D.C. were not aware of the import liberalisation made in July, 1966 of spare parts of machinery.

†Heavy Engineering Corporation.

the parties concerned. It is essential that indigenous supplies of equipment should be developed as early as possible. The N.C.D.C. and these manufacturers of machinery in India—both in public and private sector—should join together in making these special efforts to develop these indigenous sources. Specially in the case of opencast mines, the N.C.D.C. will soon have to place a number of replacement orders as and when the machinery imported in the earlier years completes its period of useful service. It should be possible, therefore, for the N.C.D.C. to provide long term orders to the manufacturers on condition that they develop the manufacture to the specifications required, and make all arrangements necessary for their timely deliveries at reasonable prices.

12. Indigenous manufacturers of machinery and equipment should themselves be able to provide supply of spare parts as required. It should be one of the terms of arrangements between the N.C.D.C. and the major suppliers that adequate supplies of spare parts will be forthcoming for the equipment supplied by them.

13. For the maintenance of equipment and machines the N.C.D.C. has established colliery workshops at each colliery and two Central Workshops one at Barkakana and at Korba. The workshops at the collieries that we visited seem to have been well laid out and contain all the necessary equipment for minor repairs and maintenance including lubrication service. For major repairs and overhaul, the plant and machinery have to be sent to the Central Workshop. We have been informed that the running repairs and maintenance are adequately looked after by the N.C.D.C. staff at the various collieries. It is only when supplies of spare parts become necessary and these are not readily available in the stores, that the machines have remained under breakdown for long periods. Each colliery has a complement of mechanical and electrical engineers who are in charge of maintenance, minor repairs and lubrication service.

14. The Central Workshop at Barkakana was brought into commission in April, 1961. Its primary purpose was to undertake major overhauls for the plant and equipment of the N.C.D.C. It has facilities for the overhaul of engines, repair of tyres and of electrical equipment and the transmission system. The project Report for Barkakana estimated its cost at Rs. 130 lakhs. A part of the machinery required for this workshop was obtained from the *US Defence Supplies at much reduced rates. The investment in the workshop (excluding township) was only Rs. 85 lakhs. The man-power required by the project was 1300 and actual employment on 1-7-1967 was 857. The workshop has also undertaken manufacture of spare parts. Initially the workshop did not have the technology for the manufacture of spare parts. There is also a problem of obtaining raw material for their manufacture. The workshop has a laboratory now for analysis and testing of raw material and the finished goods. It has been trying to obtain the technology from the manufacturers but it has not succeeded except with the USSR authorities who have now agreed to sell the

*Subsequently, in 1965 it was found that a small number of the machine tools obtained were old and difficult to operate and maintain. After a survey of equipment by a Survey Committee consisting of certain technical experts, these old machines were disposed of. The original cost of these machines being low the disposal did not result in any losses. The original book value of these machines was Rs. 69,339; the sale proceeds were Rs. 1,38,550.

drawings and technology for the spare parts of the equipment made in USSR. At present, 1600 items of spare parts are reported to be under manufacture by the Central Workshop at Barkakana and it is expected that the number would increase to 2000 very shortly. A great deal of leeway has, however, yet to be made in this direction.

15. It is understood that the annual turn-over of the Barkakana Central Workshop is of the order of Rs. one crore. According to the statement made to us, in seven years of its existence 1087 engines, 145 shovels dumpers and dozers, and 4 other machines are reported to have been overhauled and 1024 major electrical jobs undertaken.

16. Another Workshop which is set up with USSR collaboration was inaugurated at Korba in August, 1967. The workshop was located at Korba in order to serve the repair needs of the collieries in Madhya Pradesh and Maharashtra areas. The workshop itself is located very near the Manikpur colliery and is connected by rail and road. The projected capital cost of the project was Rs. 2 crores. Most of the machinery has been installed and the workshop is ready to accept orders. However, during our visit to this workshop in December 1967, we noticed that not much work was undertaken at the workshop. It is evident that there has been no pre-planning to bring the workshop into use without delay. There was no planning and design office. No technical supervisors had been trained or skilled labour obtained for the operation of the machine and no plans had been made to obtain the requisite quality of raw material needed for the manufacture of spare parts, even though, according to copies of letters shown to us, the Superintendent of the Workshop had drawn attention to these deficiencies as early as 1965 and asked the headquarters at Ranchi to prepare prior plans for the use of the workshop, when completed. It would seem that this large workshop facility which has been recently completed would remain largely idle and only partly utilised until proper arrangements are made for bringing it in to full use. We were told that the N.C.D.C.'s orders would absorb only 70 per cent of the capacity of the workshop and that the workshop would be in a position to undertake orders from other customers.

17. We consider that immediate attention is needed for planning the effective use of these workshops, not only in the matter of providing major overhauls for the plant and machinery of the N.C.D.C. but also for the manufacture of spare parts and, where possible, even for the execution of orders from other customers. For this purpose, these two workshops should be staffed with competent management, with requisite staff of technical officers, workshop supervisors, store keepers, cost accounts officers, administrative and personnel officers, drawing upon the existing personnel of the N.C.D.C. to the extent possible. The workshops should be regarded more or less as independent units and their work should be directly supervised at the higher level by the Chief Engineer (E & M) at Ranchi who should be made fully responsible to make these workshops achieve the maximum degree of efficiency and usefulness. It may be necessary for the N.C.D.C. to obtain outside assistance from the management of similar workshops in private or public sector to advise the Corporation as to the way in which these workshops could be suitably manned and fully utilised. The staff of the workshops itself should have not only the knowledge of the workshop practices and the mechanical requirements of the various types of machines

in use of the N.C.D.C., but also an aptitude and resourcefulness to render maximum service whether by way of overhaul of existing machinery or by way of design and manufacture of spare parts. The officers for the workshops should be selected from amongst those employed at the collieries but if adequate talent suitable for running these repair and manufacturing workshops is not found from amongst existing N.C.D.C. personnel there should be no hesitation in taking persons from outside. The workshops should try to meet the needs of the collieries to the largest extent possible. If the N.C.D.C. work does not absorb the capacity of the workshops they should be free to obtain orders from other sources. It should be, however, understood that the N.C.D.C. has a prior claim on the workshop facility and its equipment.

18. Questions have some times been raised that if the cost of repairs or manufacture at these workshops is high as compared to what is payable to an alternative source of supply, it would impose an unnecessary burden on the collieries to obtain services and supplies from the Central Workshops. This question is, in fact, related to the pricing procedure for the jobs undertaken by the workshops. Obviously, if the cost of a job is found to be high, the workshop should immediately put itself on enquiry as to why the cost could not be reduced and brought down at least to the level of the alternative quotations. On the other hand, if the N.C.D.C. collieries do not make full use of these workshop facilities, rendering them idle or unutilised, that in itself would affect the aggregate financial position of the Corporation. Cost of those works which cannot be undertaken elsewhere would correspondingly go up. It is, therefore, in the larger interest of the Corporation that the collieries should make full use of these facilities. If there are price disputes between the workshops and the collieries, doubtless some suitable internal machinery for determining the price that should be charged for the work and to decide the issues involved, could be evolved by the N.C.D.C.



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CHAPTER XV

MANAGEMENT AT COLLIERY LEVEL

Having determined the quantities and grades of coal to be produced at each colliery, it is necessary to ensure that the requisite production level is reached at the minimum possible cost. The supply of equipment, spares and stores and adequate care and maintenance of plant and machinery constitute one factor in securing performance in this direction. The most important factor is the managerial skill particularly at the local level.

2. The principal officer of the N.C.D.C. at the colliery level is Project Officer/Deputy Superintendent of Collieries. Where the colliery is being developed, the officer is designated as Project Officer, whereas for revenue collieries his designation is that of Deputy Superintendent of collieries. The latter designation is not strictly descriptive of the role which this officer plays in bringing about increased production. The D.S.O.C. has one or more subordinate officers who are designated as Colliery Managers and who are statutorily responsible as Managers under the Mines Safety Legislation. But these colliery managers have no powers, administrative, financial or disciplinary. It is the Project Officer or the D.S.O.C. who has all the management powers and functions. The so-called colliery managers are frequently just no more than staff officers to the D.S.O.C. They supervise the work of coal extraction and its movement to pit-head and ensure that safety regulations are strictly adhered to. In all respects they are just like other staff officers who are required to attend to the care and maintenance of plant and machinery, cost accounts, labour relations, and general administration. The administrative and managerial functions vest in the D.S.O.C. who is the head of the team. It is his responsibility to exercise the administrative and financial powers delegated to him in fulfilment of these functions. It is also his responsibility to give effect to such policy directives or other instructions which may be issued to him from the headquarters at Ranchi or from the Area headquarters. The staff officers, including the so-called colliery managers are his help-mates.

3. The principal functions of the D.S.O.C./Project Officer is to secure requisite production, at minimum possible costs. Many opportunities are indeed open to the D.S.O.C./Project Officer to exercise his ability and resourcefulness to bring about economies in the work at the collieries, within the general policy frame work as laid down from the Headquarters or Area offices. In our questionnaire to several local officers of the N.C.D.C. we invited suggestions as to how economies could be brought about in cost of production. Many useful suggestions have been received. Some of them have necessarily to be considered as matters of general policy at the headquarters and/or at the area level. Some can be given effect to by the DSOC/Project Officers. Even for those suggestions which require to be considered at higher levels, it would be for the DSOC/Project Officer to implement whatever orders are issued from higher offices. We mention here by

way of illustration a number of such suggestions which have been mentioned in the replies of the N.C.D.C. officials—

- (1) Where wear and tear or tyres of dumpers is considerable, money should be spent on making and maintaining heavy duty haul roads with good surface to save tyres.
- (2) Haul distance of coal and overburden should be reduced.
- (3) Wasteful travelling of machinery can be reduced by controlling or eliminating the use of vehicles for such purposes as carrying personnel, tours, information, coal for domestic consumption etc. Alternative arrangements can be made for these purposes.
- (4) Overtime allowance should be controlled and curtailed.
- (5) The number of coal loaders and sand loaders can be reduced.
- (6) Efforts should be made to reduce demurrage by providing coal handling plant and bunkers where necessary.
- (7) Careful watch should be kept on muster rolls and employment of casual labour.
- (8) Surplus labour should be retrenched or otherwise disposed of.
- (9) Quantitative and qualitative norms of work should be fixed for the engineering sections.
- (10) There should be incentives for all categories of workers and officers.
- (11) There should be some system of penalising bad work and the disciplinary procedures should be speeded up.

4. Then there are ways of securing economies by means of improved techniques and improved organisation. If the required production is obtained by the intensive exploitation of a limited number of faces and seams the unit cost of production would be lower than what it would be by spreading the effort to different seams and to a large number of coal faces. In this and other similar matters, each colliery would present problems of its own and it would be for the D.S.O.C. to examine how these problems can be resolved and maximum economies secured. Similarly, deployment of matching units of machinery would yield better results than what an indifferent or unmatched set of machines would do. Some of these solutions may need the advice and detailed investigation by industrial engineers; but a great deal can be done even without such advice and it is for the D.S.O.C./Project Officer to explore these possibilities and act on his initiative. What is important is to build up cost consciousness amongst these officers and through them, among the rest of the colliery staff and workers.

5. One question which frequently arose during our visits to collieries and in the replies of some colliery officers to the questionnaire is whether the D.S.O.C. himself should not be also statutorily responsible as Manager of the Colliery under the Mines Safety Legislation. A number of colliery managers have informed us that they are called on to shoulder this statutory responsibility, whereas they have themselves no administrative or financial or disciplinary powers to ensure that requisite measures are taken in fulfilment of these

responsibilities. They have to seek the orders of the D.S.O.C. who is administratively responsible to the higher management not only for production and cost but also for the labour relations and due observance of safety regulations. Their suggestion is that they should be given requisite powers, as well as administrative jurisdiction, corresponding to these responsibilities. If this suggestion is accepted, there will be a great deal of diffusion of financial and administrative responsibilities, thereby causing greater complications and difficulties. The Committee, however, considers that there is substance in the suggestion that the officers who are administratively responsible for production cost, labour relations and safety should also be statutorily responsible for the observance of safety regulations. The correct remedy would be that, wherever permissible, the D.S.O.C. should himself assume the responsibilities of the Colliery Manager under the Mines Safety Regulations. We do not propose however, that for this purpose the number of D.S.O.C. should be increased. What is proposed is that to the extent that the Regulations permit, the statutory responsibility for the safety and the administrative responsibility should be combined. Where this is not permissible under the Mines Safety Regulations, the existing position should continue. We understood that in the earlier years the N.C.D.C. had appointed a large number of Colliery Managers under the Mines Safety Regulations, each for a separate set of inclines. We consulted the Director General of Mines Safety and find that, strictly, it was not necessary under those Regulations to appoint so many Colliery Managers, as the charge of a few neighbouring inclines could be combined under one Manager. We understand, the position has since then been rectified to a great extent. It is desirable, however, to review the position and to ensure that the numbers of Colliery Managers so appointed for the purpose of Mines Safety Regulations are the minimum required under the law.

6. We have stated that in the discharge of his responsibilities, the D.S.O.C. should have the supporting staff of technical, administrative, personnel and accounts officers. The staff need not be large; the number of persons required and their status should depend strictly on quantum of respective workloads. There is no reason why the staff officer should be an Executive Engineer, when the quantum of work justifies only an Assistant Engineer. It is important, however, that all such staff works under the administrative jurisdiction of the D.S.O.C. and regard themselves as his staff officers. In technical matters, their work would be subject to supervision, inspection and guidance from the appropriate senior technical officers of the areas and the headquarters; in such matters they should be guided by the instructions from the higher authorities; but administratively they should be under the control of D.S.O.C. Similarly, the cost Accountant or Assistant Cost Accounts Officers, responsible for the costing work at the colliery should receive guidance from and follow the instructions of Cost Accounts Officers of the Area in the technical matter of costing; but administratively he should be the Staff Officer of the D.S.O.C. It is the principal duty of the D.S.O.C. to ensure that he and his staff work as a team with a common purpose. In securing their requisite cooperation, the D.S.O.C. himself would find it convenient to leave these officers mostly free to carry out their functions in accordance with their own knowledge of the techniques relating to care and maintenance of machinery, maintenance of accounts, labour legislation

etc. and be generally guided by their advice. Intervention from him should not, ordinarily arise except when required in the overall interest of production, economy in costs, safety standards or labour relations.

7. Many officers of the N.C.D.C. have pointed out to us that there are no codes and manuals laying down the duties of various officers of the Corporation. The responsibilities of individuals are not precisely defined and these are left to be inferred from various designations. This indeed is a major lacuna. The position has become even complex because initially the various departments were organised vertically with the head of the department at Ranchi having control of the respective officers in the fields. Thus, the civil engineering officers in charge of the building construction at various projects were directly responsible to the Superintending Engineers of the areas and through them to the Chief Civil Engineer at Ranchi. The Maintenance Engineers of E. & M. Department were similarly treated as being responsible to the Chief Engineer E. & M. at Ranchi through the respective hierarchy. Similar was the case in respect of accounts staff. One result of this verticalisation of cadres was the weakening of the local responsibility of the D.S.O.C. and at the middle level that of the A.G.M. Another result of it was the tendency of each department to proliferate and build up large cadres for itself, irrespective of what may be justified by current work-loads. Co-ordination of all these functions took place only at the headquarters in Ranchi. Otherwise, each department carried its own work in its own way at various local levels. Frequently, these arrangements resulted in confusion and extravagance which arose from the lack of co-ordinated progress of projects and production. Later since 1962 some measures were taken for decentralisation of various functions, constitution of areas, delegation of administrative and financial powers to the A.G.Ms. and to the Project Officers/D.S.O.Cs. However, on account of these earlier traditions of centralised working and in the absence of codes and manuals defining powers and functions of each officer in each field, there is still a noticeable lack of co-ordination at the colliery and area levels.

8. It is, therefore, essential that N.C.D.C. should fully recognise the D.S.O.C./Project Officer as the principal officer on the spot responsible for production, economy in costs, safety and labour relations as well as for carrying out all those policy instructions which are issued from time to time from the headquarters. On our visit to the collieries, we have had opportunity to meet a number of officers presently holding charge as Project Officer or D.S.O.Cs. We are impressed with the competence and ability of a large number of these officers. We are also convinced that a large number of them has the right aptitude to work and that, given encouragement and guidance from the higher levels of administration, they have the ability to raise the performance of the N.C.D.C. to a much higher level than at present.

9. We agree that codes and manuals should be prepared early for the guidance of officers working in the field as well as in the Area and Headquarters organisation. These should define the duties of each officer and prescribe procedures for their work. It is for the Headquarters to take action for the formulation of these codes. In the interim period and having regard to the principal role of the D.S.O.Cs./Project Officers, initially it could very well be left to them

to define the respective responsibilities of their officers. It would be for the D.S.O.C. to ensure a harmonious working of his team. It could also be for him to secure the cooperation not only of his officers but also of the middle level personnel like foremen, under-managers, overseers and with their help to secure adequate cooperation from the mining personnel. The managerial skill of this key officer of the colliery should indeed be the basic corner stone of the N.C.D.C.s' performance. Its work and performance will clearly come to be judged by the extent to which he succeeds in these directions.

10. Having thus formulated the respective roles of the various staff officers at the colliery level the D.S.O.C./Project Officers should evolve the office procedures and define office duties in such a way as to obtain the best results with minimum complement of staff and men. If any of the procedures laid down by the headquarters or the areas come in the way of this objective, it should be possible for him by consultations at the requisite level to secure necessary changes and modifications. The procedures laid down from the headquarters should also be such as to strengthen this role of the D.S.O.C. and Project Officers.

11. In our First Report we have already recommended that the form of cost sheet should be reviewed and modified so as to present in it separately all those costs, which relate to matters within the control of the local officers. These should comprise not only of the expenditure incurred in the form of salaries, wages and other amenities on man-power or in the form of stores and spare parts of machinery, but also of the extent of use of the machinery and equipment. In so far as the cost sheet forms a necessary tool to him to consider whatever economies are possible in the costs, such a modification of the cost sheet should be materially helpful to him in securing these economies.

12. Equally there should be a review of the administrative and financial powers delegated to the DSOC/Project Officers. It may not be necessary to enlarge these powers. The objective of such a review should be to make only such adjustments as would enable them to carry out effectively their day-to-day functions of production and local management, keeping in view the general policy objectives of the Corporation.

13. The delegation of these powers should not, however, mean that there should be no control on their work. The control should take the form of prescribing progress reports and returns. The DSOC/Project Officers should also be required to report on all such important matters which should come to the notice of the higher authorities. Further there should be a system of regular inspection by supervisory officers both from the area and the headquarters level. There should be frequent consultations between the Project Officer/DSOCs on the one hand and the technical and administrative officers of the area and headquarters levels. These consultations would ensure not only an inter-change of ideas between the project and the policy making levels, but also would secure necessary guidance for the Project Officer from the higher levels. In themselves such consultations would also ensure a measure of control on the work of the Project Officers. Besides these direct measures of control, the area and headquarters would also exercise control, when certain more important matters are required to be referred to them for decisions and

sanction, and by such indirect checks as internal audit, technical scrutiny of projects and of the working of projects, cost enquiries and vigilance activities.

14. Having thus emphasised the duties of the Project Officer and DSOC, we have considered whether, and if so what incentives should be provided for this officer to put out his best performance. In the past it was customary for the N.C.D.C. to assess the work of each officer on the basis of his performance in production, economies of costs, labour relationship and safety record. Officers with the best performance in these four aspects of their work could have received recognition by way of promotions etc. Many of the officers have in the initial years of the Corporation received fairly rapid promotions. There was a rapid growth of the work of the Corporation which made it possible to make these promotions. Since 1964, however, the opportunities of promotions have diminished. It may be that in future the opportunities for promotion will not be as rapid as in the past. Nevertheless, it should be possible to consider the performance of each officer and in the case of really good performance, to award accelerated increments, honoraria, merit allowance—some such monetary incentives to the selected officers.

15. An obverse of this proposal is to penalise those whose work is not up to the standard. It may be possible in some cases to relegate such persons to positions of less responsibility and in cases of proved negligence or inefficiency, to take other disciplinary action.

16. But it is not the monetary incentives alone which are required in securing that these officers carry out their tasks to the best of their ability. There are many other ways in which recognition to their work can be given. N.C.D.C. might find it desirable to introduce some system of medals, certificates of merits or other awards to officers of the rank of D.S.O.C. and below. An important objective is to make the Project Officer/DSOC feel that he is an important link in the administrative hierarchy whose work directly determines the overall performance of the Corporation.

17. Such a feeling can also be brought about by providing opportunities for consultations with other similar officers, inter-change of ideas with them, and improvement of their knowledge. We suggest that every quarter the Project Officers and the DSOCs of each area should meet, discuss matters relating to their problems, receive guidance from the A. G. Ms. and the technical officers of the headquarters. These discussions will be mutually beneficial and promote camaraderie amongst these officers. Similarly there should be half yearly or at least annually a conference of all the DSOCs/Project Officers at the headquarters. Contacts between these officers and the area and headquarters officers should be increased by more frequent inspections and visits from senior management. This inspection/supervision tours should not be confined only to the technical supervision. The M. D. and other Directors and their deputies should also pay frequent visits to the areas and thereby improve their own appreciation of the local problems as well as help in resolving them on the spot. Furthermore, the DSOCs/Project Officers and those other officers who may have the potential of undertaking these responsibilities, should be given a course of management training at the recognised institutes

in the country. One of the ways of improving the technique and knowledge is by means of a house magazine on technical matters, which would give opportunities to officers to relate their own experience of development of collieries and ensuring production, so that these could be of some guidance to others for handling similar problems.

18. Indeed these ideas can be further extended to the more junior technical officers of the collieries and the staff level. There could be seminars and conferences of junior officers and of foremen and operators, at the appropriate level. They should be encouraged at such seminars and conferences to relate their own experiences. These seminars and conferences, will thus promote improvement of knowledge and technique as well as promote a spirit of camaraderie and abiding interest in work.

19. An important task of the DSOCs/Project Officer is to secure and maintain the cooperation of labour. The matter is not free from difficulties. A more detailed discussion of the problems that arise in labour management relations is contained in a separate Chapter. Many of these problems cannot be effectively resolved at the level of the Project Officers. Some of them have to be handled not only at the area level but also at the headquarters level. Nevertheless, there are a number of matters which have to be resolved with tact, perseverance and management skill by the local officers and more particularly by the DSOCs/Project Officers. It is at this working level, workers and supervising officials come into daily contact and problems arise which need to be resolved, so as to promote the cause of production and consequential betterment of the performance of the N.C.D.C. Frequently, changes in methods of work, designed to bring about economies or some other objective can be introduced with the willing cooperation of labour, if matters are explained in detail and any difficulties that may be brought out are overcome. In doing so, the DSOC/Project Officer has necessarily to display a sense of purpose, a sense of fairness, patience and understanding.

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CHAPTER XVI

ADMINISTRATION AT AREA LEVEL

For the line organisation, the work of the N.C.D.C. is divided into 10 areas, each in the charge of either an Area General Manager or Additional Area General Manager. Over the last several years, this officer has come to occupy an important position in the Corporation. It is to him that the Managing Director at the headquarters and the Board of Directors look to for carrying out their decisions at the local levels. In the beginning there were only three areas. However, as the work increased and more projects were undertaken, additional areas were established.

2. We considered whether there was justification for as many as 10 areas. The details in respect of each area in regard to the output, labour force, number of collieries in the charge and capital cost are shown in the following table—

Area	No. of units		Actual Production in 1967-68 (m. tonnes)	Actual Capital expenditure till 31-3-67 (crores of Rs.)†	Staff strength on 1-3-68
	Collieries	Others			
1	2	3	4	5	6
1. Bokaro-Kargali	6	4	2.83 (6.82)	32.18 (9.30)	17,960
2. Karanpura	7	3	2.60 (5.72)	29.95 (5.69)	15,633
3. Central Jharia	2	..	0.01 (4.26)	12.69 (20.16)	2,164
4. Giridih	2	1	0.29 (0.43)	0.47 (—)	4,852
5. Orissa	3*	..	0.65 (1.56)	5.30 (3.00)	5,649
6. Korba	4	1	1.18 (3.00)	17.98 (5.14)	6,522
7. Baikunthpur	4*	..	1.29 (2.80)	10.66 (4.55)	6,443
8. Bisrampur	2*	..	0.95 (3.30)	10.82 (2.81)	2,082
9. Singrauli	1*	..	0.22 (2.00)	2.79 (4.57)	410
10. Nagpur	3	..	0.33 (1.85)	4.59 (3.54)	800

Figures in brackets in columns 4 and 5 represent respectively the total target of production and further likely investment as per project report.

*Excludes 2 mines in Orissa, 2 in Bisrampur, 2 in Baikunthpur and 1 in Singrauli on which work has been suspended.

†As given in N.C.D.C.'s capital budget statement for 1968-69. Due to increase in the estimated costs of the projects, the actual additional investment will be much higher.

It will be noticed that the picture is uneven. Two areas, namely, Giridih and Singrauli comprise of just one group of collieries each. Similarly, the three areas of Bistrampur, Nagpur and Orissa are relatively smaller than those at Korba, Karanpura, Bokaro-Kargali and Central Jharia. We considered whether the two smallest units at Singrauli and Giridih could be joined on to nearby larger areas. Giridih itself is only 60 miles away by road from Central Jharia and could have been included in the Central Jharia area. It is also not very much further away from Bokaro-Kargali area. However, elsewhere we have stated that the two deep shaft mines of Central Jharia require close attention by competent senior officers. The A.G.M. in-charge of Bokaro and Kargali could not also be given the charge of Giridih as he will shortly be required to look after some three washery projects. It is important that the attention of these two A.G.Ms. is not distracted by the inclusion in their charge of the distant mines like Giridih group. The mines at Giridih themselves are near exhaustion and it is not certain how long these will continue to be exploited. In the case of Singrauli, there is no nearby area to which it can be tagged on, as there is no easy communication between that area and the nearest areas of Baikunthpur and Bistrampur. However, the two small areas of Baikunthpur and Bistrampur could be combined and placed in the charge of one A.G.M. Taking these geographical factors into account, therefore, we conclude that the number of areas could be reduced from ten to nine by the combination of Baikunthpur and Bistrampur. This does not mean, of course, that all the A.G.Ms. have to be of the same status. But they should have similar administrative, financial and disciplinary powers.

3. The main function of the A.G.M. is to co-ordinate the activities of all the productive units in the area. He has to be in constant and close touch with the officers directly in charge of these units. It is his responsibility and the responsibility of his staff officers to provide guidance and support to the officers in-charge of these productive units by frequent inspections and frequent exchange of views. The A.G.M. has been given certain financial and administrative powers in order to facilitate speedy decision in respect of the productive units of his area. While the annual production plan for the Corporation will be drawn up at the headquarters, for each of the units in the area, the Area General Manager who should help in its preparation, should consider what support is needed for implementing the plans, review the progress of production from month to month and bring about conditions as would ensure the adherence to the production plans.

4. In undertaking these responsibilities and functions, the A.G.M. acts on behalf of the headquarters and the Board of Directors. It is his duty to see that the policy decisions as communicated to him by the headquarters are duly implemented, and that the procedures as prescribed by them are adhered to. The Managing Director and the Board of Directors would look to him to ensure that maximum economies are introduced and adequate precautions are taken against malpractices, such as false and fictitious muster-rolls, expensive local purchases or contracts etc. It is also his duty to bring to the notice of the headquarters and for the information of the Board all the requisite data, progress reports and information on important matters relating to production and development in his area and to seek their decisions on matters which are not within his competence. Although the A.G.M. has been given financial,

administrative and disciplinary powers, he is expected to exercise them in furtherance of the policies and in accordance with the procedures laid down by the headquarters and the Board of Directors. Cases have come to notice where the decisions of the Board of Directors have not been made effective as promptly as required. It is possible that the A.G.M. may hold different views on matters decided at the headquarters; what is necessary in such cases is that he should bring those views to the notice of the headquarters, but any decisions made by the headquarters after taking those views into account, have to be faithfully implemented by the area officers. We have already suggested in our First Report that the A.G.M. should be responsible direct to the Managing Director and the headquarters management team.

5. The A.G.M. has a complement of staff officers to help him to discharge his duties. The number of persons working as his staff officers in different technical administrative and accounts fields should depend on the quantum of work. Where the quantum of work is small, it may not be necessary to have large numbers on the staff. The number of officers in certain areas appears to be excessive. A review should, therefore, be made taking into account the quantum of work involved. Sometimes the work can be managed by officers holding relatively junior status; in some cases it may be possible to combine the charges. Staff officers are advisers of the A.G.M. in their respective field. It is the duty of the A.G.M. to make full use of the technical knowledge of his staff officers in the respective fields. In one or two places, we received complaints that some of the staff officers did not have a full day's work. Such a situation should not arise. A good A.G.M. will ensure that maximum assistance is obtained by making full use of their respective technical knowledge and competence and make them feel that they are also participants in the common effort. They should be encouraged to visit the field units to consider such problems of the field units which have relevance in their respective fields of knowledge and help the A.G.M. in improvements as required. It is to be remembered that the staff officers have no independent functions. They act only on behalf of the A.G.M.

6. We have referred in our First Report to the fact that for some years now, the A.G.M. can exercise his financial powers only in consultation with the D.F.A. He has no powers to over-rule his Finance Officer. We have recommended that the earlier position by which the Area General Manager can over-rule his Finance Officer in cases where he thinks it is necessary to do so, should be restored. It is not that such occasions would occur every now and then. Frequently, the Area General Manager would find it convenient to be guided by the views of his Finance Officer. In case of difference of views, all that he needs to do is to record the difference and communicate it to the headquarters but after the necessary decision is taken.

7. Another important recommendation that we have made in our First Report is that the accounts work should be fully decentralised. The Area Accounts Officer should be made fully responsible for compilation of accounts for the area. The existing system whereby a great deal of expenditure is incurred through an imprest account is not satisfactory.

8. Generally speaking, all the officers posted in the area should be under the administrative control of the A.G.M. We have, however, made three exceptions for convenience of work and also with a view to avoid placing additional administrative burdens on the A.G.M. The Workshop Superintendents in-charge of the two Central Workshops should be directly responsible to the Chief Engineer (Elec. & Mech.) at the headquarters. It would be the responsibility of this Chief Engineer to ensure that these workshops are properly organised and that they carry out their work efficiently. Similarly, where regional stores are established, officers in charge of these regional stores should be administratively under the control of the Controller of Stores and Purchase in Ranchi. Thirdly, in some areas it may be necessary to appoint special officers of the Sales Department for contacts with local customers like power houses, settlement of disputes, finding local markets etc. These officers should be under the administrative control of the Sales Office at Calcutta and not under the control of the Area General Managers.

9. However, even in these three types of cases, there has to be a close liaison between the A.G.M. and the officers concerned. This should be brought about by frequent consultations. In so far as the work of these three types of functionaries is important to the functioning of the productive units in the areas, and to the N.C.D.C. as a whole, it should be the function of the Area General Manager to provide them with such local facilities as may be needed for the proper execution of their duties.

10. In certain areas, washeries have been established. We have recommended elsewhere that the washeries should be under the administrative control of the A.G.M.

11. In addition to the various technical staff to be placed at the disposal of the Area General Manager to assist him in his duties, there should be a special section of industrial engineering department manned with engineer having had special training in industrial engineering. Technical inspection guidance and supervision of work in the field units is the normal function of other technical staff officers. The services of the Industrial Engineers on the staff of the Area General Manager should be availed of only for specific problems. These should be freely available to and should be freely drawn upon by the D.S.Os./Project Officers in the field.

12. While the various staff officers of the Area General Manager remain under the administrative control of the Area General Manager, in technical matters they should be free to correspond with the corresponding technical officers of the headquarters on the one hand and of the project or collieries on the other. A good A.G.M. would encourage this cross communication provided that in all important matters, he is kept fully informed and is consulted. Similar would be the position in respect of Accounts Officers in charge of financial and cost accounts. In technical matters relating to accounts they should be free to correspond with the corresponding officers of the headquarters and the areas keeping the A.G.M. informed of this correspondence. The work of the Area Accounts Officer should also be inspected from time to time by the Chief Accounts Officer in Ranchi to watch that correct procedures are followed, essential checks exercised, the accounts are properly maintained and also to ensure

that funds are properly used and the accounts as compiled in the area present a correct picture of the area transactions.

13. We have been informed that sometimes decisions are taken at the headquarters without consultation with the A.G.M. There have been cases of the A.G.M.'s views having been over-ruled, specially in matters relating to labour relations. We consider that it would be advisable that in all such cases, the final decisions should be communicated to the parties concerned by and through the A.G.M.



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CHAPTER XVII

HEADQUARTERS ORGANISATION

1. In regard to the organisational work at headquarters we have made several recommendations in our First Report. For convenience of reference these are reproduced below:

- (i) The Committee fully endorses the extent of delegation of powers at present made to the Managing Director. In the exercise of these powers he would have full authority to over-rule the other functional directors.
- (ii) To enable the Board of Directors to function properly, they should prescribe a number of returns and reports which should be brought to the meetings periodically.
- (iii) The Committee suggests that sufficient powers be redelegated to the heads and officials of various departments at headquarters so as to relieve the Managing Director of routine and unimportant work.
- (iv) Ordinarily the Managing Director should not be in charge of any specific department. However, for some time to come, sales and sales promotion will have to be specifically looked after by him. The Sales Manager will work directly under him.
- (v) The Technical Director should be in charge of all technical departments and have under him a Chief Engineer (Production) responsible for the planning of production and operation of revenue collieries, a Chief Engineer (Planning) responsible for all matters connected with development projects, Chief Engineer (Electrical & Mechanical), Geologist and Civil Engineers.
- (vi) The Finance Director should be in charge of Internal Audit, Accounts and Financial Advice. The Internal Audit should be strengthened early and asked to undertake studies of comparative unit costs etc. The Chief Cost Accounts Officer should co-ordinate the cost data, provide technical guidance and bring to the notice of the management, matters arising out of the cost data that require their attention.
- (vii) The Area General Managers should be empowered to over-rule their Financial Advisors where they consider it necessary to do so in the interest of production and progress of development projects. They should, however, be required to record their reasons and to report the matter to the Headquarters immediately thereafter.
- (viii) The Director in-charge of Administration should have under him a Chief of Administration and a Chief Personnel Officer. He should also be incharge of Stores and Purchase and miscellaneous departments like Security, Medical, Legal and Public Relations. Vigilance should remain with the Managing Director.

- (ix) The whole-time Directors should be carefully selected and if necessary higher salaries may be given for attracting suitable persons.
- (x) In the present organisational chart, the Area General Managers are shown as subordinate to and under the control of the Director of Production. It would be more appropriate to show them as under the control of the Managing Director and the Head-quarters management group.
- (xi) Greater attention should be paid to ensure that all the top posts are properly staffed and not left vacant.
- (xii) The procedure for sanctioning the top posts and filling them up has to be speeded up and if necessary, the Department of Mines and Metals could seek delegation of necessary powers for the purpose.
- (xiii) Duties and responsibilities of each official in the Headquarters office should be properly defined and well understood by each person working in it.

We have only a few points to add here by way of supplementary recommendations.

2. We consider that the main function of the headquarters is that of direction, supervision, providing necessary organisation for the activities of the corporation and formulation of policies and procedures. General financial matters as well as matters relating to production and sales should also receive attention at Headquarters. The functional Directors at the headquarters along with their respective complement of the heads of departments and other officers should be in charge of all this work. The number of officers and staff required for the execution of these duties, should be determined on the basis of the quantum of work. The number should be reviewed and modified as required. There is scope for reduction in departments like the civil engineering department. There should be an Organisation and Methods Division in the administrative division of the headquarters which should ensure that the office staff at headquarters, areas and field units is sufficient but not excessive for the quantum of work in hand. In matters relating to technical and accounts departments, the Functional Director in charge of the administration would, of course, consult his respective colleagues in this matter.

3. In our First Report we have suggested that the Technical Wing of the headquarters should comprise of a Planning Department and Production Department each in the charge of a Chief Engineer of requisite status. The following additional recommendations are made in respect of the work of these two departments.

1. The Chief Engineer (Production) would be responsible for carrying out and formulating the overall annual production plan and the review of the plan. Also, as stated in our First Report, he and his officers should undertake frequent tours in order to guide and supervise the work of field officers in matters relating to production in revenue collieries. The Chief Engineer (Production)

should also require the senior officers on his staff to undertake inspections in some detail with a view to locating problems which need to be handled for raising production or for economising costs. By his own inspection as well as by the inspection of his senior officers he would come to know of any specific matters requiring detailed investigation. We have already stated in the relevant Chapter that the inspection notes of these officers should also be made available to the Vigilance Office for its study. Chief Engineer (Production) should also be in charge of Industrial Engineering activities.

5. The Planning Department of the Headquarters needs to be strengthened. It has to have competent staff with considerable technical knowledge in matters relating to development of mining. We have recommended elsewhere that the department should be incharge of all development projects in the field from the inception of the proposal to set up a unit to the time that it is brought on revenue account. It should receive progress reports in respect of each development project. Its Planning Officers should be encouraged to go into the field to visually inspect the progress. We have separately recommended that in respect of all projects, the earlier project estimates now require a review and that special teams should be constituted to carry out these reviews and to revise them where necessary. This work should be in the charge of the Chief Engineer in the Planning Department. These Planning teams as well as the Planning Department should be staffed not only with Mining Engineers but also with persons who have knowledge of markets for coal, of plant and equipment and of transport facilities, etc. The Research and Development Wing should also be in the charge of the Chief Engineer of the Planning Department.

6. The Sales Office needs to be strengthened with a section for undertaking market surveys and for collecting market trends. As stated elsewhere, the Sales Department may have its representatives in some areas, where necessary, for closer liaison with production units, for contacts with nearly customers, for promoting local sales and for speedy examination of any complaints and disputes with customers.

7. We have separately asked that an officer should be appointed to look into the past complaints as to sales and to settle all the outstanding cases within a specified period. This officer has necessarily to work in close touch with the Sales Office as well as Chief Engineer (Production Department). It should be his responsibility to get the Sales, the Production Department and Finance to discuss all the cases in detail and reach definite conclusions.

8. There are many other recommendations made elsewhere which would affect the organisation at the headquarters. The main recommendations are briefly mentioned below;

- (i) Strengthening of the Internal Audit and making fuller use of that organisation.
- (ii) Appointment of the Chief Vigilance Officer directly responsible to the Managing Director.

- (iii) A Public Relations Office to be in the charge of the M. D. We have suggested in our First Report that the Chairman of the Board of Directors should interest himself more particularly in public relation activities. This is an important activity for which there should be adequately competent staff to help him.
- (iv) A washery Section; this may be constituted as an independent section in the charge of the Functional Director (Technical).
- (v) Research and Development Wing—We have recommended above that this wing should be attached to the Planning Department.



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CHAPTER XVIII

FINANCIAL RESULTS

Our terms of reference refer at the outset to the fact that "for sometime past production of the N.C.D.C. has not been commensurate with the investments made and there is no adequate return on capital invested". In other Chapters, we have referred to the short-falls in the targeted production of the N.C.D.C. and the reasons therefor. We have also suggested in these other chapters, the measures that should be taken to improve sales, transport arrangements and maintenance of plant and equipment so as to raise production without significantly adding to the capital invested. In this chapter, we propose to deal with the question of financial return on capital.

2. One important way of judging the efficiency of an enterprise whether public or private is to ascertain the profits or losses made by it and the return on investment. In the case of public sector enterprises, financial profits may be affected by certain measures which these enterprises take in the public interest. Never the less, even in their cases, the return on investment is rightly looked upon as a measure of their efficiency.

3. The following figures of profits and losses of the N.C.D.C. are compiled from their published balance-sheet:

Years	Excess of income over expenditure during the year	Adjusted profit/loss	Development Rebate reserve	Taxation Reserve/Contingent liability reserve/addl. depreciation reserve	Net profit/loss
(1)	(2)	(3)	(4)	(5)	(6)
(In lakhs of Rupees)					
1956-57	25.92	25.92	..	25.92	..
1957-58	11.73	11.28	10.00	1.28	..
1958-59	20.04	13.54	20.04	..	(—)6.50
1959-60	20.98	35.17	28.67	..	6.50
1960-61	103.66	89.38	120.94	..	(—)31.56
1961-62	11.89	(—)40.93	3.68	..	(—)44.61
1962-63	125.56	97.78	21.61	..	76.17
1963-64	19.54	16.35	16.35	..	..
1964-65	(—)171.37	(—)208.14	..	..	(—)208.14
1965-66	61.76	31.80	..	..	31.80
1966-67	(—)158.46	(—)309.77	..	..	(—)309.77
Total	71.25	(—)237.62	221.29	27.20	(—)486.11

4. It will be noticed that except for the years 1964-65 and 1966-67 when the working results showed an excess of expenditure over income of Rs. 171·37 lakhs and Rs. 158·46 lakhs respectively, in all other years Corporation made some profits. In some years profits were small. In the aggregate during these 11 years, there was an excess of Rs. 71·25 lakhs of the income over the current expenditure. These results are arrived at after making full provision for depreciation of plant and machinery and after payment of interest to the Government on that part of the Government investment which was covered by loan capital.

5. Following the usual practice in respect of public sector enterprises half the Government investment is in terms of equity and the other half as loans carrying interest of $4\frac{1}{2}$ to 7 per cent per annum. We gather that in all these years ending 1966-67, the N.C.D.C. has paid as much as Rs. 16·25 crores by way of interest charges to the Government on the loan capital. In addition, since 1964-65 the N.C.D.C. has been paying interest at the commercial rate of $7\frac{1}{2}$ to $8\frac{1}{2}$ per cent per annum, on its working capital borrowed from the State Bank of India against the hypothecation of stocks, raw materials etc. The amount of interest paid to the State Bank of India in 1966-67 was Rs. 61,41,251.

6. The Corporation has also made adequate provision in its balance sheets for the depreciation on plant and equipment including amortisation of development expenditure, at the rates allowed in the income-tax laws. For some fixed assets, the depreciation provision at income-tax rates was considered to be inadequate and the rate has been stepped up since 1966-67. Part of the funds accruing from this depreciation provision has formed the internal resources of the Corporation and these have been utilised for fresh investment. It is gathered that the total amount of fresh investment undertaken from the internal surpluses—mainly depreciation provision of the Corporation is Rs. 27·46 crores to the end of 1966-67.

7. The above table shows the final profits and loss of the Corporation in each of these eleven years, after making allowance for the special provision made in the accounts for bad debts, write off of capital expenditure on mines on which further work has been suspended, write off of part of the unabsorbed deferred revenue expenditure incurred and other adjustments. The final financial picture for each of the years is shown by the figures in columns (3) and (6) of the Table.

8. To illustrate the nature of these readjustments, reference may be made to the published balance-sheet for the year ended March, 1967. For that year there was an excess of Rs. 158 lakhs of expenditure over the income during the year. After adjustment this loss was increased to Rs. 310 lakhs. The details of adjustments are given in the appropriation accounts for the year. An amount of Rs. 41·69 lakhs representing developmental expenditure on closed mines was written back from capital to revenue. An amount of Rs. 63·56 lakhs representing unabsorbed deferred revenue expenditure relating to removal of overburden was also written off. The depreciation rate was increased for buildings at those collieries where the coal deposits were likely to be exhausted within a limited number of years so that no large residual values remained after the closure of the collieries. These and other adjustments account for major part of the

difference of Rs. 152 lakhs between the current loss and the adjusted loss for the year 1966-67. At first sight, these adjustments would seem to be an undue burden on the finances of the Corporation. Nevertheless, these writes off are in accordance with the best commercial practice and are calculated to improve the future financial strength of the Corporation.

9. In the aggregate the total loss of the Corporation for the 11 years after making all these adjustments is Rs. 486·11 lakhs. Deducting from this amount, the provision made for development rebate reserve and the taxation reserve, the net loss for the 11 years ending 1966-67 is Rs. 237·62 lakhs.

10. Part of this loss is also due to the fact that under a Government directive the Corporation was required to continue operations at the Giridih group of collieries. This is an old group of collieries where coal has been extracted for nearly 100 years. The best category of coal available in these mines is almost exhausted. Heavy pumping of water is needed to get at whatever coal remains to be taken out. There are difficulties in the sale of low grade coal. The Corporation, therefore, decided in 1959 to close these collieries. The Central Government intervened. These collieries produced some of the best coking coal in the country. There was also the problem of throwing out of employment some 7000 workers at these collieries. In the interest of conservation of this high grade coal as well as for avoiding sudden unemployment amongst the workers of these collieries, the Government issued a directive asking the N.C.D.C. to continue the operation of these mines.

11. The total loss incurred by the N.C.D.C. on the Giridih Group of collieries since the year 1960, when the Government directive compelled the Corporation to continue operations at these collieries is reported to be Rs. 4·27 crores. In our First Report, we have recommended that the financial impact on the N.C.D.C. arising from any Government directives should be borne by the Government. If this recommendation is accepted and given retrospective effect, the financial results of the 11 years working of the N.C.D.C. would show a small surplus of about Rs. 2 crores.

12. This financial picture of the N.C.D.C. for the net result over eleven years of its existence, is undoubtedly better than that of several other public sector projects, inasmuch as it has all along made full provision for depreciation and interest and has been able to make some provision for certain contingent losses.

13. The table in paragraph 3 shows that the position has changed however since 1964-65. For the first time that year N.C.D.C. showed a loss of Rs. 171 lakhs. In the following year, with coal despatches rising by 1·34 million tons, there was a profit of Rs. 61 lakhs. In 1966-67 coal despatches fell marginally from 9·47 million tons to 9·4 million tons and the burden of depreciation and interest meantime went up by Rs. 120 lakhs. For these reasons and because of certain adjustments and provisions made in the accounts of that year there was again a loss of Rs. 158 lakhs. Substantial loss was incurred on the new revenue collieries working well below their capacity. Over these three years the position has thus been disturbing.

14. The financial results for 1967-68 are not yet available. A rough estimate given to us by the N.C.D.C. shows that the working of the collieries on revenue account would show an excess of expenditure over income of about Rs. 44 lakhs. After making provision for maintenance expenditure on suspended mines, 10 per cent of the capital expenditure on immovable assets of suspended mines, additional depreciation on first class buildings, and other adjustments, it is likely that the Corporation may show a loss of about Rs. 115 lakhs. Coal despatches of the N.C.D.C. during 1967-68 were about a million tonnes more than those in 1966-67. The improvement in profit and loss account that is likely to be shown in the year 1967-68 accounts, is of the order of Rs. 43 lakhs. Assuming therefore, as a very rough yardstick, that an additional production and despatches of a million tonnes of coal improves the annual financial results by an amount of about Rs. 40 to Rs. 50 lakhs, it may be legitimate to estimate that if the production and sales increase by another 2 to 3 m. tonnes, the N.C.D.C. will have not only come out of the position of losses on current account, but would have strengthened itself sufficiently to meet part of the unabsorbed losses of the previous years and provide for any other contingencies. The capacity production and sales of some 15 million tonnes, from the collieries, now on revenue account should result in the Corporation having definitely turned the corner.

15. To verify the above estimate, we asked for the views of the N.C.D.C. We have been informed that the break-even point for revenue collieries of the N.C.D.C. is 11.25 million tons (as against the sale of 10.4 million tons in 1967-68), that the built in capacity of revenue collieries being nearly 15 million tons, if production reaches this capacity the profit may go up to Rs. 4.5 crores (i.e. equivalent to about 6 per cent on subscribed share capital). On the basis of these figures every additional million tons of production and sale should improve the profits of the N.C.D.C. by Rs. 1.50 crores. Against this expectation some increase in depreciation and interest charged to revenue account must be expected, when the mines under development come to revenue account.

16. While the current picture of the N.C.D.C. in regard to the financial results is not satisfactory, there is thus a promise that it can come out of this present position if the production and sales are increased. Indeed, the principal reason why the N.C.D.C. has not been giving adequate return on the capital investment is the large gap that exists between its production target, production potential current in-built capacity and the actual production. Where as the investment expenditure was determined by the high targets of production that the N.C.D.C. undertook to achieve, primarily by opening out new and mechanised mines, its production potential is short of these targets and the actual production even short of its current production potential. We have elsewhere stated that provided arrangements are made for replacement of wornout machinery, supply of spare parts and adequate maintenance of plant and equipment now in use, it should be possible for the N.C.D.C. to raise its production to about 15 million tonnes from the revenue collieries without any additional capital investment. To achieve this level of production, it is important that requisite sales arrangements are made both for steam and slack coal from collieries which are capable of achieving this production and that necessary transport arrangements are made for the despatch of Coal to consumers. The N.C.D.C. should aim at raising its production from what are now revenue collieries to this level in the next two years.

17. We have not attempted to compare the financial results of the N.C.D.C. with any of the private sector collieries. Any comparison of this type, however, has to make allowances for several factors, some of them in favour of the N.C.D.C. and some against it.

18. We have not studied the balance sheets of the private collieries. Such information as we have seen in respect of the private collieries is somewhat out-of-date. The spokesmen of the coal industry have been consistently pleading in recent months for a significant rise in the purchase price of coal by Government Departments on the ground that it does not pay now to produce coal and that production at current price is not profitable. A number of collieries has not yet given effect to the higher wages awarded by the Wage Board as they claim that financially they are not in a position to meet this extra burden. The coal demand itself has been stagnant over the last two/three years and there is no sign as yet of any significant rise in demand. The picture that the spokesmen of the coal industry have been presenting is one of a depressed industry requiring assistance. N.C.D.C. as an important unit of the industry is also naturally affected by this stagnation of demand. In its case, the position is worse as it set out to reach very high targets of production and its investments were determined by those targets of production. Its actual production is nearly 1/3rd of the target that the N.C.D.C. had at one time aimed at and less than 1/2 of the revised Third Plan target of production.

19. One reason why a comparison between the private coal industry and the N.C.D.C. may not be appropriate is that the private industry in large part is engaged in extracting coal from mines which have been in existence for several years. The new investment required in their case for expanding production from existing or contiguous units is relatively small. On the other hand, the N.C.D.C. tried to raise its production from new mines, some of which are set up in new and hitherto unexploited areas. The problems of organising production and sales are, therefore, in some sense, more difficult in the case of N.C.D.C. and the investment requirements are larger than those of the large majority of the mines in the private sector. It has moreover been stated that the Railway rationalisation scheme helped the private sector collieries of Raniganj/Jharia coalfields more than the collieries in other coalfields. The N.C.D.C. has, as yet no revenue earning colliery in Jharia/Raniganj area. Its production at present is in the outlying regions of Karanpura, Orissa, Korea, Birsampur, Korba and Maharashtra.

20. A further factor which distinguishes the N.C.D.C. production from the production of the private collieries is the factor of mechanisation. In this respect too, the N.C.D.C. set out to do pioneering work specially in open cast mines. Capital cost of a mechanised mine are greater than that of a manually worked mine. It is necessary, therefore, for a mechanised mine to secure a larger margin between its sales proceeds and the working costs in order to absorb the larger amounts of depreciation and interest on investment. Effective mechanisation of production, moreover requires that there is a regular offtake of substantial quantities of steam and slack produced with mechanical means. The introduction of mechanisation if properly organised and worked, should assist the N.C.D.C. to make its working more profitable.

The output per manshift is considerably greater on mechanised working as compared to manual extraction of coal, whether from underground mines or from opencast quarries. It is an essential requisite of mechanisation, however, that the machinery is deployed in the best possible manner and that adequate arrangements are made for maintenance (including preventive maintenance) and service of equipment so that it is used to the fullest possible extent. The N.C.D.C.'s arrangements in this respect need a great deal of improvement. As a result of mechanisation, the overall OMS of N.C.D.C. mines is now 0.75 tonnes. The OMS for the coal industry as a whole is of the order of 0.55 tonnes. But there is scope for N.C.D.C. to increase the productivity still further by better deployment of manpower and maintenance of its plant and equipment. A further increase in productivity which N.C.D.C. is in a position to achieve, should enable the N.C.D.C. to show a much better financial performance.

21. A few other factors which affect the financial picture of the N.C.D.C. may now be stated.

22. The N.C.D.C. has been operating all old State collieries many of which continue to be worked manually. Some mechanisation has been introduced in Kurasia and Bokaro. These two mines were showing profits before they were taken over and they continue to do so. Many others, however, continue to work at a loss year after year. The case of Giridih mines has been mentioned earlier. Apart from these, the mines at Argada, Talcher, Deulbera have also been showing losses year after year. Some of the new quarries opened have also come near exhaustion and show large losses. Amongst them may be mentioned Saunda in Karanpura area and the Korba mines in Madhya Pradesh. The N.C.D.C. needs to examine carefully the future of these collieries in order to see how they can be made financially viable. If there is no possibility of making them viable, they may even have to be closed. Closure of these mines will involve the N.C.D.C. in significant expenditure in compensation to retrenched labour, unless the labour can be redeployed elsewhere.

23. We have stated in our First Report that where the N.C.D.C. continues to operate unprofitable units at the directive of the Government, the accruing losses should be borne by the Central Government. Apart from the case of Giridih mines which have already been referred to, one other such unit is the Gidi Washery which is now under construction. The case of Gidi Washery has been mentioned in detail in another chapter and it has been pointed out that this Washery project would not have been taken up by the N.C.D.C. and it was clearly at the insistence of the Government of India that this unprofitable project was undertaken by the N.C.D.C. The N.C.D.C. repeatedly pointed out that Gidi Washery was not a viable unit. Nevertheless, the Government approved of the project and required the N.C.D.C. to undertake it. Although there is no specific directive in this case, we consider that, in fairness, this is also a case where the losses that are likely to accrue from the operation of the Gidi Washery be debitable to the Central Government.

24. A third type of case which is likely to involve heavy financial burden on the N.C.D.C. are the deep mines of the Central Jharia and the two mines at

Banki* and Surakachar* in the Korba region of Madhya Pradesh. In all these cases, the capital cost of the projects are likely to be substantial. Problems of working of these collieries when they are completed are also likely to be complex and the gestation and teething periods are likely to be long.

25. The mines at Banki and Surakachar were undertaken in the belief that the coal from these mines may have blendable properties and that it could be utilised at the Bhilai steel plant barely 100 miles away. However, on further testing, the coal is not found to have blendable qualities. Steam coal from these mines has a ready sale to the Railways; there is difficulty in the offtake of slack. The only nearby consumer, the Korba Thermal Power Station is drawing its supplies from the nearby Korba collieries and the Manikpur quarry of the N.C.D.C. There are proposals for setting up additional industries in Korba region. A coal based fertiliser plant if set up in this region would provide a regular outlet for the production of these mins. The N.C.D.C. and the Deptt. of Mines and Metals should therefore explore fully with the Ministry of Petroleum and Chemicals the possibility of the establishment of such fertiliser factory in the public sector. The establishment of such a unit will simplify the problem of making these two capital intensive mines financially viable.

26. The problems at the two deep mines of Central Jharia, namely Sudamdih and Monidih are somewhat different. These two mines were undertaken with a view to providing coking coal for a large programme of steel expansion. The steel expansion programme itself has recently slowed down. The future of these mines is linked up with the revival and future progress, of the steel programme. As these are very deep mines and as a new system of mining is undertaken, their capital costs are high and the cost of production is likely to be high. Private collieries producing coking coal have leases and licences for areas where coking coal deposits are much nearer the surface and hence capable of being extracted more easily and at lower costs. They would, therefore, be in a position to supply the coking coal demands at much lower prices. Thus these two deep mines may not find it possible to compete with supplies of coking coal from private mines. The reason why these two deep mines were undertaken was that looking ahead, India would need to exploit all its coking coal deposits to support a large steel programme. The need for these mines now appears to be of a more long term character than what was once thought. It is possible, therefore, that for years to come, there may be difficulties in securing adequate prices for the production of these two mines. The coal industry in India has no experience yet of working of horizon mines, as proposed at these two places. Working of these mines is, therefore, likely to present several problems needing very careful attention. We have referred to them in another chapter. Here it may be sufficient to say that these mines are likely to have very long teething periods and in the meantime, they may show financial losses which would affect the overall financial results of the N.C.D.C. As production of coal from deep mines is a proper function of the N.C.D.C., we do not think that the case of these two mines should be regarded on the same basis as that of Gidi Washery. The losses that may arise in these two mines specially during the teething period should legitimately become part of the

*Certain expenditure is being incurred at these mines for a sand-gathering plant. In view of the change in the method of working at Banki, part of this expenditure may become infructuous.

financial results of the N.C.D.C. But the fact that their operation will affect the overall profits of the N.C.D.C. has to be recognised. There is, at present a subsidy given to mining of coal from deep mines. The working of these two mines would doubtless qualify for this subsidy. If the rates of subsidy are made adequate and a slab system devised giving higher rates of subsidy for greater depths, these may help these mines to compete on equal terms with the nearby private collieries for supplies to steel plants.

27. We have referred in other places to the housing, townships and other amenities and facilities provided by the N.C.D.C. As a public sector enterprise, the N.C.D.C. has been maintaining a high standard in this respect. These facilities, however, cost money both in capital expenditure as well as recurring amounts and these are charged to the N.C.D.C. working results. It may be argued that it may not be proper to isolate these charges as these high standards of labour amenities doubtless ensure that the labour is relatively more contented and more cooperative in maintaining continued production. The fact remains that the N.C.D.C. has been providing in this way certain municipal services and getting no direct financial return for them.

28. Besides, we have separately referred to the expenditure incurred by the N.C.D.C. on geological prospecting of projects which are not needed for some years to come. Here is another field in which the N.C.D.C. as a public sector undertaking attempted to assist in the national interest, in the realisation of what was at one time considered to be the coal demand of the country.

29. We have referred to these special burdens which N.C.D.C. as a public sector unit has to carry. In any comparison of financial returns between the public sector and private sector units, these factors need to be taken into account. By referring to these factors, we do not wish to imply that the public sector units should not attempt to get the maximum possible return on invested capital and placate public interest as a cause for inadequate return. It is equally the obligation of the public sector enterprise to obtain financial surpluses for certain investments and expansion, as well as finding resources for the public exchequer. It is now recognised that return on public sector investment is an essential part of the resources needed by the Government for its development purposes and it is, therefore, the duty of every public sector enterprise to make its best effort to increase these surpluses. For this purpose they should organise themselves to ensure cost-consciousness, increase efficiency and effect all such economies as are possible.

30. In the case of the N.C.D.C., there is scope for such an increase in profits. If it takes measures to improve its performance and to provide for larger sales especially from those collieries where the difference between the sale price obtainable and the cost of production is large and for the more intensive use of the plant and equipment available to it, these would add to the profits of the Corporation. Similarly, many economies are possible even within the present structure. We have made a number of suggestions for effecting economies in several other chapters. We have referred, for instance, to the need to review the deployment of plant and machinery in each colliery. We have suggested that every Project Officer should be constantly on the look-out for effecting such economies as he could in achieving the desired level of production. The N.C.

D.C. may even have to make certain structural changes in some of its old collieries with a view to making economies in production and thereby increase its profits. In some cases, the existence of surplus labour may prove a handicap in these efforts, and the restructuring of these collieries may have to be carried out over a period. There could then be a phased plan for retrenchment or redeployment of labour which is found surplus after effecting the structural changes.

31. To ensure that all these economies in production are carried out, it is also necessary to improve the financial administration. Currently, financial powers are delegated to various authorities within certain limits. We have noticed, however, that there is not adequate budgetary control on the expenditure incurred at various units and in various offices. Employment of additional staff and workers, upto certain levels of pay is decentralised to Area authorities. Without adequate budgetary control, the exercise of these powers may very easily lead to extravagance.

32. A system of budgetary control as applicable to a production unit is somewhat complex. Nevertheless, such a system can be drawn up and worked. We have already suggested that before the beginning of each year there should be a production plan drawn for every colliery taking into account the sales possibilities, the transport situation and the state of plant and machinery at the colliery. Corresponding to this production plan there should be the annual expenditure plan with the budgetary provisions made for various items of expenditure which are required for the projected level of production. These expenditure estimates could then form the basis for a budgetary control. It may not be feasible for the budgetary control and appropriation audit to be made as restrictive and as rigid as that in the Government departments. It would be understandable if when there is variation in production, there is equally a variation in some of the elements of expenditure which directly contribute to the cost of production. It should be possible to provide within the system of budgetary control some latitude to the officers having financial powers to vary the requirements to correspond with the needs of production. Subject to this flexibility, there should be quarterly returns and reviews of the financial expenditure incurred in each colliery and it should be compared with the estimates as provided at the beginning of the year. This periodical review would then indicate the direction in which economies, if any, are possible. It would also point out any measures of extravagance undertaken that could then be controlled in time. It is in this way that a system of budgetary control could be introduced on expenditure incurred on production. We have here laid down only a broad outline in which the control over expenditure could be introduced. The system should be further refined as required before it is adopted.

33. In addition to this budgetary control over expenditure, the N.C.D.C. should work out, in relation to the working conditions at each mine, norms and standards as to the complement of manpower and machinery to be employed for expected optimum rate of production. Similar norms should be prescribed for the quantity of explosives used or stores consumed. We have reason to believe that in the absence of such norms there is the possibility that excessive manpower has been employed. It would be useful to examine the position

at each colliery, in relation to the level of production, working conditions and such other factors. These norms and standards would then be useful points of reference for judging performance in terms of the progress in production, as well as in cost economies achieved.

34. N.C.D.C. needs to attend to certain other suggestions we have made in other chapters in order to improve its financial position. We have pointed out that the inventories are large and the store accounts are grossly in arrears. Reference has been made to large outstandings in payments for coal supplied to various consumers and middlemen. At some collieries like Kathara, South Balanda and in some of the M.P. collieries, there are large stocks of slack. Early steps should be taken for their disposal. Requisite action on all these matters would reduce the pressure on working capital and thereby save the N.C.D.C. in interest charges.



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CHAPTER XIX

TRAINING AND RESEARCH

The National Coal Development corporation is a large undertaking with as many as 43 production units some of which are situated far away from one another. These units consist of mines, opencast as well as underground washeries, stores and workshops. The personnel employed are of different categories, workmen (semi-skilled and skilled), supervisors and officers of different cadres. According to statistics furnished by N.C.D.C. which cover 32 out of the 43 production units and some of the administrative units, there were on 1-3-1968, among the industrial staff, 441 officers, 5,065 monthly rated personnel, 22,658 daily rated workers, 18,209 piece rated workers, 637 casual labourers and 298 substitute workers making up a total of 47,308 industrial workers. In addition there were 5677 office staff in these units. The total strength of N.C.D.C. is about 66,000.

2. Most of the mines, particularly the new ones, were planned to be fully mechanised and a large complement of plant and machinery was purchased. In actual practice, however, complete mechanisation has not been possible. Because of several reasons including difficult mining conditions, many processes which were to have been undertaken mechanically are actually carried out by manual labour. An important difficulty faced in the use of the machines is the frequent breakdowns and machines remaining idle for long periods due to non-availability of spare parts.

3. Preventive maintenance is now a well recognised practice and if properly adopted, should result in much less breakdowns. Cases have been reported where there has not been a single breakdown of some coal-cutting machines over long periods, because a major part of one of the three shifts is reserved for maintenance.

4. To achieve good results in respect of safety, production and costs, it is imperative that the Corporation has well-planned system of training for different categories of personnel and also a research wing looking into various technical problems referred to it from the various projects, and finding solutions for them.

5. N.C.D.C. started some mining training schools to train some categories of its workers. Two of these schools at Barkakana and Kurasia were converted into Mine Mechanisation Training Institutes in 1964-65 by the Ministry of Labour and Employment; there is one school also at Jarandih. We feel that the corporation should strengthen and reorganise these schools and Mine Mechanisation Training Institute to impart intensive training to its skilled workers and supervisory staff.

6. There are two well recognised systems of training—

(i) In-service training programmes i.e. training within industry;

(ii) Special training courses.

We feel that upto the level of Assistant Colliery Manager the first type of training may be adequate; but beyond that, i.e. for Colliery Managers and above, the officers particularly those who are promising should be given an opportunity of widening their outlook and learning modern systems of management, for which facilities are now available at the Institutes of Management at Calcutta and Ahmedabad and for higher level personnel at the administrative Staff College at Hyderabad. Here we may mention that the word 'Colliery Manager' is a misnomer, because frequently the post is held by a person who has had no training in management. Colliery Managers are required to have First-Class Coal Mine Manager's Certificate of Competency obtained by passing the examination held under the auspices of the Department of Mines Safety; but the examination consists of five papers and Management Constitutes only a small part of one of these papers. Colliery Managers have practically no training in finance, accounts, inventory management etc., whereas they are called on to undertake the related tasks of management in these spheres, as well. It is very important specially for a public sector undertaking like N.C.D.C. that its managers are trained in these important aspects of management. One would go further and suggest that some training in these subjects should be given in Engineering Colleges, and Institutes preparing students for the degree course itself.

7. The programme of training may be divided into the following categories:

- (i) Vocational training for miners, loaders and similar workmen.
- (ii) Machine operators and maintenance crews.
- (iii) Supervisory staff.
- (iv) Officers.

(i) *Vocational Training for workmen—*

Vocational training rules have now made it obligatory on the part of the employers to give at least 15 days' vocational training to workmen. We endorse this new scheme which in our opinion will make the workmen more safety conscious; a worker who is safety conscious also serves the cause of uninterrupted production. This training, in our opinion, will, therefore, serve the purpose of both safety and production.

(ii) *Machine Operators and Maintenance Crews—*

N.C.D.C. embarked on ambitious production programmes during the Second and Third Five Year Plans. Mechanisation was the only way to achieve these targets and the new projects were so planned as to reduce manual work to the minimum. Unfortunately, within a short period of the introduction of mechanised loaders, shuttle cars, etc., the same were withdrawn from number of mines because of frequent breakdowns and the non-availability of spare parts in adequate quantity. We feel that the important reasons of the frequent breakdowns are inadequately trained machine operators and poor maintenance.

8. The Corporation now has spare equipment and it should not be difficult, therefore, to start training centres for machine operators and maintenance crews. In fact, the Corporation has a training institute already in Barkakana

where some instruction is imparted. The ideal location seems to be near the Central Workshop at Barkakana, because machines from different units are brought there for major over-haul and the trainees can thus have an opportunity for only in operating a variety of machines but also in dismantling and reassembling them. The importance of preventive maintenance should be emphasized and the efficiency of operators and maintenance personnel including officers should be judged by the number of hours machines are run without a breakdown. A similar training centre could be opened in Madhya Pradesh near the Central workshop at Korba. The duration of the courses for various categories of personnel could be worked out by the Corporation, but it may be indicated that the National Coal Board in the United Kingdom had the following courses:

- (i) A four weeks course for colliery mechanics and electricians.
- (ii) A course of 16 or 26 weeks for maintenance men.
- (iii) A two weeks course for mechanical operators.
- (iv) A two weeks course for Under Officers in charge of mechanised districts.
- (iii) *Supervisors* —

There should be short-term courses for supervisors giving them training in theoretical and practical aspects of their respective branches. These could be arranged in the respective areas and the same instructors could go round different areas during the periods best suited to them. Alternatively, lectures could be arranged at the projects in the evenings where supervisory staff could assemble. This alternative does not involve absence of the trainees from their normal work. Suitable incentives may have to be provided for those attending classes and also for those delivering lectures.

The Supervisors should be made to attend refresher courses after a period of say from three to five years.

Suitable training arrangement should also be made for store-keepers and stores officers, cost accountants and cost accounts officers, and the technical personnel in other cadres.

Officers:—

- (iv) Technical officers consist of the following cadres :
- (i) Mining Engineers employed as Ventilation Officers, Safety Officers, Assistant Managers and Managers, Project officers, etc.
- (ii) Electrical and Mechanical Engineers.
- (iii) Mechanical Engineers (Excavation Engineers).
- (iv) Civil Engineers.

The largest single category of engineers in the Mining Industry is Mining Engineers, who start their career as Assistant Colliery Managers/Managers. It is suggested that the Corporation may institute a scholarship scheme under which bright young boys of its employees may be sponsored for mining/technical courses under a bond to serve the Corporation for a certain minimum period. This will enable the Corporation to pick up youngmen brought up in proper environments who can be given suitable training during their vacations in the mines according to a properly drawn up scheme. It may be mentioned that mining students are sent on training during vacations and these will not in any way mean inconvenience to the trainees.

These scholarship holders after graduation should join the training scheme of the Corporation and during such period they will get a stipend of Rs. 250 per month from the Government of India and they may be paid suitable additional allowances as is done in some other private sector companies. They should not only take training in mining, but also in other branches like accounts, costing, finance control, stores, etc. so that they are able to perform the functions of an Assistant Colliery Manager/Manager much more satisfactorily when the time comes. A detailed scheme may be drawn up by the Corporation to fit in with their specific requirements but the intention should be to put a trainee as an apprentice/under-officer with an officer in a particular department for a certain interval after which the trainees should move to the next department.

Managers and Senior Officers—

Promising officers from this category should be deputed to appropriate short courses conducted by the management institutes in the country. Officers for such courses should be picked up purely on merit. We mention merit because we have been given to understand that good officers sometimes do not get such a chance because they cannot be spared from their work. Deputation to such courses should, as a matter of fact, be considered as a mark of recognition for good work.

Officers should also be sent for technical refresher courses at suitable intervals, which may either be arranged by the Corporation or at some suitable institution.

Research—

An organisation like N.C.D.C. having about forty three production units will always have some technical problems which require attention. By way of illustration we may mention a few such problems which arise in the working of the mines of the Corporation.

(i) Blasting Techniques—

(a) N.C.D.C. produces about 5.5 million tonnes of coal and about 10 million cubic metres of over-burden from open cast mines annually. This naturally involves consumption of large quantities of explosives. We have felt that the cost of explosive per tonne in some of the N.C.D.C. collieries is high and even a small saving effected at each mine may, in the aggregate, save a very appreciable amount.

(b) Fragmentation is another problem which, if improved, could result in a great deal of saving to the Corporation both in underground as well as in opencast mines. Fine coal i.e. minus 6 mm. in some of the collieries in M.P. does not find a suitable market and on the other hand has created a problem of dumping involving appreciable expenditure.

(ii) Methods of extraction of thick/contiguous coal seams in Karanpura area—

No suitable method has yet been evolved for the thick and split seams in Karanpura area where stowing material is not easily available.

An experimental mine is being worked out to investigate the possibility of adopting French method of caving thick seams by slices with artificial roof.

*C.M.R.S. is also taking their readings but no specific studies are being made by the Corporation which should enable them to interpret the results, so that the same could be applied elsewhere with modifications.

(iii) *Roof/Strata Control*—

The roof conditions in some mines have not been as good as expected, with the result that the equipment which was purchased for mechanisation cannot be used because owing to bad roof, galleries with requisite width cannot be maintained. In such cases the proposals to mechanise have had to be abandoned rendering the equipment surplus, and making the extraction difficult and costly. Some investigations to adopt new techniques on roof control might have helped to find a solution to this problem.

(iv) *Ventilation, Roof supports and stowing and the like and many other problems which need looking into.*

The C.S.I.R. have set up the Central Mining Research Station at Dhanbad to which problems of a general nature not requiring quick replies or quick answers can be sent; but we feel that a large Corporation like N.C.D.C. should have a research wing of its own to look into its technical problems requiring immediate solutions.

Library & Technical Literature—

The Corporation has not paid much attention to this important aspect even at the headquarters. It is getting a few mining journals only. It is not getting regularly even the free publications sent out by mining organisations in other countries, like National Coal Board of U. K., United States Bureau of Mines, Charbonnages de France, etc. It is suggested that as many technical periodicals (mining and applied mining) as are available should be obtained. A monthly digest on the basis of the latest periodical be prepared and sent to all officers. This will be of technical service to the officers in the field as well as those at the area level and the headquarters, who do not have enough time to go through detailed articles. Suitable libraries should also be established in areas so that officers could refer to them in case of necessity.

In addition, the N.C.D.C. could with advantage, introduce the following, amongst other measures to raise the technical competence of its officers and other employees, stimulate technical discussions of the problems involved and also help to create abiding interest amongst its technical officers in the mining work.

(i) Seminars may be held where different officers may read papers and initiate discussion on specific practical problems, relate their own experience of handling such problems and learn about how others have handled the same and other problems in the course of their work.

(ii) A house-magazine, quarterly to begin with, devoted to technical subjects. Articles on various technical matters could be contributed to this magazine by the officers and other employees of the Corporation.

(iii) If sufficient interest and technical thought develops as a result of the above two measures, the N.C.D.C. may undertake publication of technical bulletins on a variety of subjects which could be of interest to the managers, officers and workers of the Mining Industry as well.

* Central Mining Research Station.

CHAPTER XX

COKING COAL

A. Coking coal programme of N.C.D.C.—

Among the eleven "State Collieries" taken over by N.C.D.C. in 1956, six were coking coal collieries with a total production of about 2.1 million tonnes. Except at Giridih where there was a coke oven plant, most of the coking coal was consumed by the Railways. The Second Plan programme of N.C.D.C. envisaged the opening of a new coking coal mine at Kathara with a target of 1.5 million tonnes. It should, however, be noted that since the quality of Kathara coal was not expected to be better than grade I, it could not be of use to the Steel Plants unless a washery was also planned simultaneously. In the last year of the Second Plan, N.C.D.C.'s production of coking coal was 3.07 million tonnes (old collieries 2.28 million tonnes and Kathara 0.79 million tonnes). Out of this production, only the output of Bokaro and Kargali which was washed at the Kargali Washery commissioned in November 1958, went to the Steel Plants; the rest was taken by Railways and other non-metallurgical consumers. This state of affairs continues even today since apart from Giridih the seams exploited by N.C.D.C. are in grades which cannot be used for metallurgical purposes without washing.

2. The Third Plan originally envisaged that the N.C.D.C. would increase its coking coal production by 5 million tonnes (old State collieries 1.0 million tonnes; Kathara 0.5 million tonnes; West Bokaro 0.5 million tonnes; Ramgarh 1.5 million tonnes; Jharia 1.5 million tonnes). This programme was subsequently revised by N.C.D.C. as a result of which West Bokaro and Ramgarh in their entirety and Jharia for the most part spilled over into the Fourth Plan. The revised programme of N.C.D.C. was for 6.91 million tonnes (i.e. an addition of 3.83 million tonnes only) consisting of 3.21 million tonnes from ex-State collieries, 3.0 million tonnes from Kathara, 0.5 million tonnes from Chalkari, a new mine adjacent to Kargali and 0.2 million tonnes from Central Jharia. The actual production at the end of the Third Plan was 2.78 million tonnes made up of about 2.30 million tonnes from the old collieries and 0.48 million tonnes from Kathara, neither of the new projects having reached the production stage. The production from Kathara was far below the target as there was only limited offtake. Although there was shortfall in production, since the steel programme also suffered from a serious shortfall, the consequences were not as serious as it would have otherwise been. The problems of Kathara have been dealt with in detail in another chapter. The production of coking coal in the private sector also remained more or less static during the entire Third Plan period.

3. The reserves of prime coking coal are concentrated in the Jharia coalfield. Almost all the easily extractable seams of this field have either been exploited or are under exploitation by the private sector. A committee which examined the position in 1964 has remarked that a few major coal companies hold leases for more than half of the reserves and the rest is distributed among a large number of small collieries. It would be desirable if, in the interest of conservation of the coking coal resources, Govt. pursues the scheme of amalgamation

of small holdings vigorously and also does not grant fresh licences for small collieries for starting new enterprises or for expansion.

4. Substantial increase in the availability of prime coking coal has been considered possible by the exploitation of the southern part of the Jharia field where the seams occur at great depth. The raising of coal from these seams poses major technical problems and involves large capital outlay, with prospects of financial returns also not being attractive. In this area the N.C.D.C. has undertaken to open two deep mines with Polish collaboration at Sudamdih and Monidih. The development and operation of these mines present several problems. To start with, there is the deep shaft with workings at several horizons varying in depth upto about 565 metres presenting complex technical problems. Then, there is the large size of the mine with the expected daily output of 6,000 tonnes per day with its attendant managerial problems. At their peak production, each of these mines would be employing more than 3,000 persons, of whom more than two-thirds will be underground. Adequate arrangements have to be maintained for the supply of 9,200 tonnes of sand per day. In all, each of these projects may be called on to handle as much as 20,000 tonnes of material every day (inclusive of coal and sand). These and the safety and other arrangements have to be looked after carefully if the production is not to be affected. It is obvious that an efficient management has to be set up to achieve the targeted production in the minimum possible time. We trust that the advice and assistance of the Polish experts would be available also during the initial years after production commences.

5. Equally important is the financial aspect as the capital and development cost is far higher than that of any other mine. The project report cost is Rs. 17.57 crores for Sudamdih and Rs. 15.12 crores for Monidih. These estimates have since gone up on account of devaluation of the rupee in 1966 and the rise in other costs. They are likely to go up further with the delays that are occurring in completion of these mines. We have been told that each of these mines is likely to cost about Rs. 25 crores or even more. In view of such large capital costs, N.C.D.C. should ensure that these mines are properly managed. We were informed that already, due to slow progress, the time schedule of Sudamdih has had to be rephased and the mine which was earlier expected to reach target production in 1970-71 may now do so only in 1973-74. The implications of such delays in increasing the costs, on account of depreciation, interest and other development costs are well known. A day's avoidable delay in Sudamdih or Monidih could cause a loss of more than Rs. 50,000 on interest and depreciation alone. If such losses are not to occur, it will be necessary to vest the local management with adequate administrative and financial powers which would avoid the delays which may otherwise occur in obtaining sanctions from the headquarters at Ranchi. With a capital investment of more than Rs. 50 crores and as the problems of the collieries may be different from those of other N.C.D.C. collieries, these two mines by themselves may prove to be big enough to require the constitution of a separate company. It may be examined at a later date whether such a company would be an economically viable proposition. For the present our suggestion is that for these two projects viz. Sudamdih and Monidih, the Area General Manager in charge should be vested with adequate powers to take 'on the spot' decision, and has the assistance of competent staff of

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persons who have proved their ability during the construction stage. Among the problems which this officer should tackle right from now is a long term arrangement for the steady and assured supply of spare parts, replacements etc. It would be useful if the MAMC which also has Polish collaboration is closely associated with the provision of machinery for these mines.

6. The economic aspect of these mines has to be considered carefully. The project report of Sudamdih mentions an anticipated profit of Rs. 1.46 per tonne and that of Monidih Re. 0.07 per tonne. We are not sure if these margins would now be obtainable after the increase in the capital cost of the two projects. Moreover, these were calculated on the basis of optimum production. Judging from the past performance, it would be justifiable to assume that there will be some years before the mines reach this high level of production. It may, therefore, become necessary for these deep mines to be given a special price or their production subsidised. As the costs of coking coal supplied from the relatively shallower mines of the private sector in the area will be lower, the steel plants may be reluctant to give a remunerative price to these two collieries, at any rate for several years to come. Further, these coals may have to be washed before use in steel plants and N.C.D.C. will have to recover the cost of washing also. We have seen how protracted the negotiations were for settling the price of Kargali washed coal and how the washery was showing loss year after year. These difficulties can be anticipated and we urge that the Ministry of Steel, Mines and Metals should now take steps to avoid them. The fact that these projects have been taken up in the national interest in order to provide the coking coal needed by the steel industry cannot be ignored. Purely as commercial propositions, these are not attractive ventures. These projects were undertaken in the expectation that coking demand would rise to a level which could not altogether be met from other collieries; the expected demand may not rise to that level for some years to come.

7. The Coal Board gives financial assistance for mining under difficult conditions. The depth of shaft beyond 500 ft. is one of the factors enabling a mine to qualify for assistance. For each 100 ft. of depth beyond 500 ft., assistance is admissible at 6 paise per tonne for coking coal mines. This scheme and rates which were formulated in 1960 did not perhaps take into account the cases of expensive mines like Sudamdih and Monidih. We suggest that these rates should be reviewed in the light of conditions prevailing and likely to prevail at Sudamdih and Monidih and, if necessary, suitably revised keeping in view the fact that these mines are being specifically developed to provide the much needed prime coking coal. We also recommend that before taking up any more deep mines, their economics vis-a-vis intensive exploitation of the 'easier' reserves in the possession of the private sector should be carefully gone into, in consultation with the Steel plants, the Coal Boards and the owners of these collieries.

8. There has been no progress in the matter of providing washeries for projects at Sudamdih and Monidih. If the coal needs to be washed, some arrangements have to be made to ensure that washery facilities are established or otherwise become available by the time the mines are ready for production; otherwise the production at these mines will remain restricted for want of offtake.

B. Estimate of future demand—

The demand for finished steel by 1975-76 has been estimated by the National Council of Applied Economic Research at about 10·3 million tonnes. This corresponds to a production of 13·7 million tonnes of ingot steel. It was understood from the Deptt. of Iron and Steel that there may be a market for the export of products corresponding to the output of another 1·3 million tonnes of ingot steel. In other words, the output of ingot steel in 1975-76 is expected to be of the order of 15 million tonnes. The coal requirements are being calculated by the Deptt. of Mines and Metals in relation to the output of hot metal. The ratio between hot metal and steel ingot differs with the process, namely whether it is Open Hearth or L.D., but on an average, about 0·8 tonnes of hot metal might produce about 1 tonne of ingot steel. Hence, for an output of 15 million tonnes of steel ingots, about 12 million tonnes of hot metal will be produced. The requirement of pig iron for use in foundries has been estimated by NCAER at 2·33 million tonnes in 1975-76. This means that the hot metal output in 1975-76 will have to be of the order of 14·5 million tonnes.

2. Statement I annexed gives the capacity for production of hot metal in the steel plants, existing and under construction. This capacity totals to 12·63 million tonnes when the first stage of Bokaro Steel Plant and the sixth blast furnace at Bhilai are completed. The Department of Iron & Steel have made projection of hot metal production till 1973-74 only but if the NCAER estimates of demand materialise, the hot metal production may have to be about 14·5 million tonnes for which additional capacity of about 1·9 million tonnes will have to be established. This capacity would become available when the fifth blast furnace which had been planned earlier is commissioned at Rourkela and the second stage of Bokaro is completed. Bokaro second stage would actually give 1·85 million tonnes of hot metal but in view of the demand estimate of NCAER, it is presumed that the commissioning of the additional capacity would be suitably phased.

3. In addition to the steel plants, the other major consumer of coking coal is the coke ovens. At present there are six by-product plants including the coke oven plant of the West Bengal Government at Durgapur. The latter has installed 4 batteries with a total capacity of 0·60 million tonnes per annum. Earlier they had a proposal to establish 6 more batteries but due to the lack of demand for coke the proposal has not been implemented so far. If, as is hoped, the economy picks up, it can be assumed that there would be demand for production of more hard coke and the Durgapur coke oven project might have to double its present capacity. The beehive coke ovens and the Sindri Fertilizer plant also require some quantity of coking coal. Based on these assumption, it is estimated that the requirement of coking coal for the projects, existing and under construction, would amount to about 26 million tonnes—vide details given in statement II. This will have to be met from the existing mines, from N.C.D.C.'s projects under development, and from the technically feasible expansion schemes of private coal companies. For meeting the existing demand for coking coal as well as the firm demand that may arise during the next 5 or 6 years, N.C.D.C. need not develop any new mines and the demand can be satisfied if the additional production expected from the private sector becomes available. If the additional steel and hard

coke programmes materialise, the coking coal production will have to be raised by another 5 million tonnes. The development of the deep coking coal mines at Sudamdih and Monidih will have to be maintained so that their full production becomes available by 1975-76. According to present expectations, these mines are expected to give production at their target rate by 1975-76 but an apprehension has been expressed that there may be further delays.

4. Since the new production is likely to be mostly in medium grades, it would be necessary to put up one or two washeries with the output of about 1.6 to 1.7 million tonnes by 1973-74 for meeting the gap in the availability of washed coal for charging to the coke ovens. The processing of the Sudamdih washery and Sawang Washery expansion would meet this requirement.

5. For meeting the coal requirement of any further programmes of steel expansion, it is necessary to plan new mines and washeries. While it would be possible to produce coal from an open cast mine in about three years from the date of the sanction, if the coal is to come from a deep mine as may be the case in Jharia coalfield, the time taken would be quite long. Sudamdih is now likely to take as long as ten to twelve years for completion. It is possible that another mine which N.C.D.C. has planned tentatively i.e. Talgaria, might take less time. This is a matter which should engage the attention of the Planning Groups in the Departments of Mines & Metals and Iron & Steel so that the plans for coal production are drawn up sufficiently early to match with the plans for steel production. Along with the planning of new mines to meet the additional demand, it is necessary to plan new washeries also. Since it is stated that the capacity for the manufacture of coal washeries is available indigenously, the construction of washeries might not be a difficult task, but greater co-ordination than in the past would be necessary.

6. In the years after 1975-76, if the steel demand is expected to go up further—a clear picture is not yet available—new coking coal mines and washeries would be necessary, the planning for which should start early.

STATEMENT I

Statement showing coal requirements of metallurgical industries by 1975-76.

Name of Steel Plant/Coke Oven	Production (1973-74) M. Tonnes per annum	Norm of coal require- ment	Coal requirement as charged to the ovens			
			Total	Blend- able*	Coking	
(Million tonnes p.a.)						
<i>Steel Plants</i>			<i>Hot Metal</i>			
1. Rourkela	1.70	1.47	2.50	0.25	2.25
2. Bhilai	3.04	1.29	3.90	0.39	3.51
3. Durgapur	1.80	1.46	2.63	0.39	2.24
4. Bokaro	2.62	1.30	3.41	0.34	3.07
5. TISCO	2.01	1.30	2.60	0.26	2.34
6. IISCO	1.46	1.45	2.12	0.21	1.91
Total for steel plants	..	12.63	..	17.16	1.84	15.32

STATEMENT I *Contd.*

Name of Steel Plant/Coke Oven	Production (1973-74) M. Tonnes per annum	Norm of coal require- ment	Coal requirement as charged to the ovens		
			Total	Blend able*	Coking
			(Million tonnes p.a.)		
<i>Coke Oven Plants</i>			<i>Coke</i>		
1. Durgapur	0.60	1.33	0.80	0.12	0.68
2. Other B. P. Coke Ovens	0.25	1.33	0.33	..	0.33
3. Beehive Coke Ovens	0.37	1.33	0.49	..	0.49
4. Sindri .. ..	..	..	0.36	0.18	0.18
Total Coke Ovens ..	1.22		1.98	0.30	1.68
Total requirements of coal for metal- lurgical industries by 1973-74 ..			19.14	2.14	17.00
<i>Additional Capacity likely by 1975-76</i>					
Steel plants	1.90 (Hot metal)	1.30	2.47	0.25	2.22
Durgapur Coke Oven	0.60 (coke)	1.33	0.80	0.12	0.68
Total addl. ..			3.27	0.37	2.90
Total requirements of coal for metal- lurgical industries by 1975-76 ..			22.41	2.51	19.90

STATEMENT II

Coking Coal Requirements

						Million Tonnes
Coking coal requirements for existing projects and for those under construction ..						17.0
Coking coal availability—						
*(a) Washed coal @90% capacity of HSL washeries and at 90 to 100% of other washeries existing and under construction						12.62
*(b) Superior grades of coal not requiring washing						2.65
						15.27
(c) Balance required						1.73
Total raw coal required						
Raw coal equivalent of (a) above						20.28
Superior grades i.e. (b) above						2.65
Raw coal equivalent of (c) above						2.88
						25.81
						or say
Coking coal required for additional steel and coke oven capacity yet to be sanctioned (as charged to ovens)						2.90
Raw coal equivalent of above @60% yield						4.83

*Figures worked out by the Sub-group on coking coal requirements,

CHAPTER XXI

COAL WASHERIES

Kargali Washery—

The Kargali Washery was the first coal washery to be taken up in the Public Sector. The proposal to construct the washery was initiated by the former Ministry of Production before the formation of N.C.D.C. on the basis of a report submitted in January, 1955 by a committee under the Chairmanship of the then Chief Mining Engineer State Collieries. The washery was designed for an input capacity of 2·2 million tonnes per annum and an output capacity of 1·6 million tonnes per annum. The cost of washing was estimated at about Re. 1 per ton. The committee recommended that as the washed coal would be taken by Government consumers (steel plants for washed coal and DVC for middlings), the final price of the product should be decided by the Government after some experience was gained of the actual cost of washing. At an inter-departmental meeting held on 21-2-55, the Managing Director of Hindustan Steel Ltd. agreed that the coal would be taken by Rourkela (1·1 million tonnes) and Bhilai (0·5 million tonnes) and that HSL would be willing to pay an additional price to cover the cost of washing. The question of transfer of the washery to the HSL was considered in 1958, but as the H.S.L. asked that the Kargali—Bokaro mines should be also transferred along with the washery, it was decided not to make this transfer.

Washed Coal Price—

2. Even though the H.S.L. had agreed to bear the cost of washing, the fixation of the price to be paid by H.S.L. to N.C.D.C. for the washed coal involved protracted negotiations. Separate agreements were arrived at for different periods. The agreements were as below:—

- (i) The HSL agreed to pay the actual cost of washing in its entirety from the beginning to 30-9-1961.
- (ii) For the period 1-10-61 to 31-3-63, H.S.L. agreed to pay at a standard cost calculated on an average output of 100,000 tons per month of clean coal with an ash content of 15·8 per cent to 16 per cent. The loss, if any, during this period was to be borne wholly by the N.C.D.C. but the profit if any, was to be shared between H.S.L. and N.C.D.C. in the ratio of 2:1.
- (iii) For the period from 1-4-63 to 31-3-65 the above formula was continued with the modification that the average output was taken as 105,000 tonnes per month.
- (iv) From 1-4-65 to 31-3-67, the N.C.D.C. was allowed to include in the washing cost, a return of 8 per cent on the entire capital invested.

The price for 1967-68 has not yet been finalised and the N.C.D.C. is receiving payment on a provisional basis. The above agreement relating to the period 1-4-65 to 31-3-67 was arrived at only at the intervention of the Secretary I. & S. and Secretary M.&M., as direct negotiations between the N.C.D.C. and H.S.L. failed to reach an agreement on this issue.

3. After going through the history of the negotiations, we feel that the N.C.D.C. should not only not be burdened with any loss on account of having to wash coal supplied either to the Steel Plants or to any other consumers but also receive a reasonable return on the capital investment on the washery. There are operational and financial advantages in locating the washery at the colliery end and keeping both the collieries and the washery under the same management. In order to provide an incentive for efficient management of the washery, the N.C.D.C. would have to maintain a standard level of output which should be calculated with reference to the characteristics of the coal, the availability of transport and the expected off-take. If the output falls for reasons of low off-take, the penalty should fall on the consumers. Normally such an agreement should be arrived at by direct negotiation, between the parties; but if they fail to produce an agreed conclusion within a period of say, six months, the Government should make arrangement for fair and prompt decision in the matter, if necessary, by setting up a committee or a referee to reach a decision. It is not proper that such inter-unit disputes between public undertakings should be allowed to drag on for years as in the case of Kargali washed coal. The referee and the committee should be free to evolve fair principles to decide the issues involved. We consider that the predominant factors should be national interest, sense of fairness as between the two undertakings and the need to stimulate both units to achieve maximum efficiency.

Transport—

4. The bi-cable ropeway that was installed at a cost of Rs. 13 lakhs to transport coal from Bokaro Colliery to the Washery was subsequently discarded because according to the management it resulted in the following drawbacks :—

- (i) During the course of operation of the ropeway it was observed that the fixed ropes used to move slightly on the pulleys with the result that the pulleys were getting badly worn-out.
- (ii) The buckets were coming off the rope, causing accidents.
- (iii) Some coal was locked up under the ropeway trestles.

It is difficult to imagine why No. (i) and (ii) could not have been rectified; No. (iii) should have been thought of at the planning stage. The alternative system of transport is by road and the cost per tonne during 1966-67 was Rs. 2.31 in case of chute loading and Rs. 3.51 in the case of hand loading. The figures for cost of transport by ropeway have not been supplied. A suitable method would be by pipe line because the distance is so short and also because water has to be mixed in the washery any way; but blending may offer a problem for which a solution has to be found by proper tests. The N.C.D.C. may examine the economics of such an alternative in detail.

Collection of fine coal—

5. The filter plant forming part of the washery was installed in 1958 for recovery of the coal fines mixed with water in the process of washing. Till December, 1963 the fine coal from the slurry was not being recovered because the three filters in the washery did not have adequate capacity and also because they did not operate efficiently. It was decided at the end of 1963 to collect the fine coal manually through settling ponds which cost Rs. 60,000 only and the manual collection started in January, 1964.

According to a study made by the Management, the percentage of fine coal going to thickness is 10·2 per cent of the raw coal. At this rate the fine coal lost is slurry till December, 1963 works out at about 680,000 tonnes and if this coal is priced at Rs. 30 per ton the fine coal lost in slurry would be worth Rs. 2·04 crores.

The manual collection of fine coal has the following disadvantages—

- (i) High cost of recovery; and
- (ii) Possibility of over-reporting by the contractor; the recovered fine coal is dumped and loaded with the clean coal from the washery and the only way to know the exact quantity of fine coal recovered from the settling ponds is by counting the number of trucks reported. It is necessary to maintain proper supervision on this work.

6. The new filters forming part of the Kargali extension scheme are high capacity filters and, if the slurry circuit is run properly, the manual collection of slurry should not be necessary. Even though these filters were commissioned in March, 1966 they have not been used effectively. It may be pointed out that the Committee was informed during their visit to the Kargali washery that 4 out of 5 filters were working, the fifth being a standby, whereas at the time of our inspection it was found that only one of the five filters was working. We were informed that the expenditure on manual collection was only about Rs. 10,000 p.m. whereas it was later ascertained to be about Rs. 70,000 p.m. since April, 1966 (average).

7. During a subsequent visit, to the washery at the end of October, 1967 by one of the Members of the Committee, it was confirmed that the filtration capacity was adequate but on further probing as to why the filters were not being used, the following defects were mentioned :—

- (i) Over size coal going to the thickeners, necessitating the by-passing of the thickener and filter.
- (ii) Non-lifting type rake mechanism, in the old thickener, because of which it gets bent when slightly over loaded.
- (iii) Non-availability of the suitable filtering cloth and diaphragms.

8. In a well designed washery with proper desliming screens over size coal should not go to the thickener and it is surprising to find that no additional desliming screens were provided even though an additional thickener and two additional filters were installed costing quite a large amount as compared to the desliming screens which would have cost only a fraction of this amount. Due to the absence of desliming screens, the thickener and filters cannot be used effectively. It is difficult to believe that neither the N.C.D.C. officers connected with the expansion of the washery nor the German firm of consultants thought of this simple device.

9. When we met the Area General Manager and his washery staff in November, 1967, it was agreed that the proposed desliming screens will be installed by January, 1968 and manual collection will thereafter be stopped. It was agreed to install a wedge wire screen costing about Rs. 20,000 which would arrest the flow of +1 m.m. oversize coal into the thickener. The installation date was

later extended to April and then to the middle of June because first a compressor failed and later the bushing of the thickener cracked. We have been told informally that the bushing has been repaired in July. We hope that hereafter manual collection of slurry may not be needed.

10. The important points that need consideration are as follows —

- (i) Such a large washery was designed and erected with so small a capacity for recovery of fines. (15 tons per hour if all the three old filters are used whereas the quantity of fines coming at the original capacity was 50 tons per hour). An effort should have been made to increase the capacity of slurry circuit.
- (ii) No attempt was made to recover the fines going into the slurry for such a long time resulting in a great loss (estimated at Rs. 2 crores).
- (iii) The transport for the major part of the coal i.e. from Bokaro Colliery was arranged by a bi-cable ropeway which had to be discarded resulting in loss to the tune of Rs. 13 lakhs.
- (iv) During the expansion scheme the capacity of slurry circuit was increased to 68 tons per hour and this has been available since March, 1966 but it is not being used effectively. The expenditure since then is about Rs. 27 lakhs.
- (v) During the enquiry this was taken up in detail and ultimately it was decided to install two more screens which were to result in stoppage of manual collection by January, 1968 but the work has been delayed due to one reason or other.
- (vi) The percentage of 'fines' recovered and the amounts paid fluctuate widely from month to month. It is rather strange that the percentage of 'fine coal' could vary so widely. A strict check should have been exercised over the quantities reported to have been transported by the contractor.

From our examination of the question and the answers received by us, as well as the absence of a sense of urgency on the part of the officials concerned to adopt the simple remedies which would have saved the Corporation about Rs. 8 lakhs per year; we have reasons to conclude that the arrangement for manual recovery of the slurry requires detailed probing by the Managing Director, with the assistance of some expert in coal washeries from outside the N.C.D.C.

Gidi Washery—

11. In 1958 an Expert Committee on Coal consumption on Railways recommended beneficiation of the non-coking coal so as to provide selected grade coal to the Railways. The production of selected grade coal was falling and hence the Government accepted this proposal in principle. Apparently, the question of who should be responsible for constructing the washery was not considered at that time. The Department of Mines and Fuel appear to have proceeded on the assumption that the setting-up of washeries was the responsibility of the consumer, namely, the Railways. The Railway Board on the other hand was not willing to take up this responsibility. The Railway Board wrote to the Department of Mines and Fuel in November, 1959 stating that the

Board will not undertake the responsibility for the establishment of the non-coking coal washeries. Its view was that the setting-up of washeries for beneficiating low grade coal is appropriately the function of the Ministry responsible for the production and distribution of coal. Later on, Railway Board in a D. O. letter dated 8th July, 1960, also made it clear that it will not agree to pay any extra price for the washed coal over and above the notified price of selected grade coal. At the same time the Board urged the Department of Mines and Fuel to set up the washery at an early date. The N.C.D.C. was asked to undertake this project. In August, 1961, the N.C.D.C. asked whether the Railways would agree to pay the cost and stated that the Corporation would start the project only if the cost of washing is reimbursed to them. In reply, the M.D., N.C.D.C. was told by the Joint Secretary in the Department of Mines and Fuel in his D. O. letter dated 25th August 1961 that "it has been decided that the N.C.D.C. should go ahead with this project promptly without waiting for a decision as to who should bear the cost of washing." This decision was taken at the highest level and the Planning Commission is also stated to have agreed in principle that this washery project should be pushed forward. Again in December, 1961 when talks were going on with the Poles for the preparation of the project report of the washery, the Managing Director wanted a clear understanding that the N.C.D.C. would not be called upon to bear the cost of washing and also referred to the problems of disposal of the washery middlings. No specific reply appears to have been given to this letter. In view of Government's express desire, N.C.D.C. undertook the preliminary work but again in February, 1962, the M.D. wrote to the Government asking for either a directive to go ahead with the washery and accept the losses arising therefrom or for an assurance that the cost of washing would be met from a source other than the Corporation's funds or for at least the limited decision that preliminary work upto the stage of preparation of the project report should be proceeded with and that the cost incurred in this process will be reimbursed. In reply, he was informed in the Ministry's letter dated 17th March 1962 that "that N.C.D.C. should proceed with the preliminary work of investigation of washability characteristics of non-coking coal upto and including the stage of preparation of the project reports leaving it to Government to decide whether the project report so prepared should be proceeded with or not." He was also informed that "the question of Government reimbursing to the corporation the costs incurred by them in connection with the stages of washability tests and preparation of project reports is hardly an appropriate assurance to ask for, seeing that the entire capital of the corporation is furnished by Government". In his note to the Board of Directors for their meeting on 26th April 1962, the M.D. had strongly disagreed with the views expressed in the Ministry's letter dated 17th March 1962 and requested the Board to reiterate the earlier view and ask for a Government directive. The Board endorsed his suggestion. He also raised the same question again at an internal meeting in the Ministry when the Ministry appear to have felt that there would be "plenty of consumers" for the output of this washery if the Railways did not want it.

12. Acting on this assumption, not only the preliminary work but also the sanction for the Gidi Washery project and the securing of Polish collaboration were pushed through. The project report which was received from the Poles in April, 1962 was finalised in June, 1962. The project came up for Government

sanction in July, 1962. In the mean time, the question of paying enhanced price for the washed coal had been discussed with the Railways at a meeting attended by the Minister of Railways and Mines and Fuel, along with other topics. No agreed decisions were reached. In the course of examination of the proposal for sanctioning the Gidi Washery project, several questions were raised by the Ministry of Mines and Fuel as well the Ministry of Finance, but there is no record to show that the remunerativeness of the project for the N.C.D.C. was touched upon. It is rather surprising to note that though the Memo. submitted to the Expenditure Finance Committee (of which the Finance Secretary was the Chairman), contained a specific heading "State the estimated yield and economic implications" no material information was given except to say that the cost of washing would be Rs. 6.22 per tonne. No indication of the controversy with the Railways about the payment of the enhanced price was given. This omission was a curious over-sight, after the spirited notes and letter which had earlier been exchanged between the M.D., N.C.D.C. and the Ministry, and when the Railways had already made it clear that they were not willing to bear the extra costs. After issue of the sanction the N.C.D.C. stood committed to implement a Rs. 8 crores project without clearing the doubts which they themselves had raised earlier about its economics. On 18th August 1962 an agreement was signed with the Polish Agency CEKOP for the construction of the Gidi Washery.

13. The M.D., however, brought the matter again to the notice of Government in a D.O. letter dated 23rd August 1962 to the Joint Secretary in the Ministry of Mines and Fuel. His words are pertinent "We are thus committed to the Gidi Washery even in the absence of a firm decision about the price which the Railways will pay for the clean steam coal supplied from this washery to the Railways. I hope this will not create any embarrassment in the future". It is not clear to us why he did not put this apprehension in the E.F.C. Memo. We suggest that in future, no washery project should be sanctioned unless its economics are carefully worked out and a clear appreciation made that consumers would be willing to bear the cost of washing.

14. On receipt of the M.D.'s letter, the Ministry made a proposal for accepting the principle of reimbursement to N.C.D.C. of the cost of washing non-coking coal either by recovering the cost directly from the consumers or by spreading it out over the entire despatches of selected grade non-coking coal. The operating cost of the washery was then estimated at about Rs. 6 per tonne and the difference between the cost of 1 tonne of washed coal and the controlled price of 1 tonne of raw coal of equivalent quality at about Rs. 11. The Railways did not agree to this and when they found that the incidence of the surcharge would be substantial, they revised their requirement of selected grade coal from 15 m. tonnes to 6 m. tonnes including 2 m. tonnes of washed coal subject to the condition that the cost of washing will be spread over the entire consumption of selected grade non-coking coal. Later on, they further reduced the requirement of washed coal from 2 m. tonnes to Gidi's output of 1.1 m. tonnes of steam coal in June, 1963.

15. One offshoot of this development was that the plans for putting up any more washeries for non-coking coal were abandoned and the only residual question remained to be solved was that of finding market for washed coal from Gidi.

16. In view of this, the Secretary, Department of Mines and Metals wrote to the Member Transportation, Railway Board in February, 1964 stating that since the Railways and Steel Plants will be the only consumers of Gidi's washed coal they should share the cost of washing, and that other consumers should not be burdened. The reply was that "in case the principle of distribution amongst all consumers is not acceptable, the Ministry of Railways would prefer to cut-down their demand for selected grades of coal rather than to pay the cost of washing." With this, the Railways went out of the picture as a consumer of Gidi washed coal. In the meantime civil works as well as supply of machinery had started. The N.C.D.C. was asked to explore the possibility of redesigning the washery so as to feed the entire washed coal to the steel plants. The N.C.D.C. consulted the Director, C.F.R.I. who said that redesigning was not necessary. He, however, sounded a note of caution about the marketability of the washed blendable coal as he felt that a large part of the requirements could be met adequately by the raw coal of Dishergar-Sanctoria seams and the washed coal from Churcha-Jhilimili (then tentatively planned). The Ministry considered this letter and decided to drop the Churcha-Jhilimili washeries and proceed with the Gidi Washery. The blendable coal requirements of 1970-71 were then estimated (by Technical Committee on coking coal which included representatives of the steel and coal industries both public and private) at 5.85 million tonnes in the total demand of 50.95 million tonnes by the metallurgical consumer. Raw blendable coal available was 2.12 million tonnes leaving enough margin to absorb the output of Gidi. The Technical Committee for linkage of collieries and washeries on which the Department of Iron and Steel was represented had expressed the opinion that the entire production of Gidi washery could be reserved for the steel plants. Unfortunately this opinion has not proved consistent with the developments that have taken place subsequently. The quantity of blendable coal that the steel plants can take is not now estimated to be more than 10 per cent except in the case of Durgapur which can be left out as a consumer of Gidi washed coal on account of transport difficulty. The firm market for Gidi washed coal is not now expected to be more than one million tonnes leaving a balance of about 0.8 million tonnes for which there is no prospective market. In addition, there is also the problem of finding a reasonable price for the washed coal especially when raw blendable coal of comparable quality continues to be available in adequate quantities. The matter is still under the examination of the Ministry of Steel, Mines and Metals.

17. Our examination of the correspondence and papers shows that it was at the insistence of the Government that this washery project was undertaken. The N.C.D.C. had clearly expressed its apprehension that the project was not viable and it would involve the Corporation into heavy losses. The Board of Directors had asked for a Government directive. No formal directive was, however, issued. The correspondence, some of which has been quoted above, shows that as far as N.C.D.C. was concerned, the insistence of the Government was as good as a directive. We have already recommended in our First Report, that in cases where N.C.D.C. undertakes unremunerative activities on a directive from Government, the financial impact of the directive should be met from Central Revenues. We have expressed in the First Report our reasons for making this recommendation. We recommend that, in the case of Gidi

washery project, the financial losses that may accrue on the working of this project be entirely met from the central revenues and should not affect the profit and loss account of the N.C.D.C.

Kathara and Sawang—

18. Two other washeries are under construction at Kathara and Sawang. The washery at Kathara was first conceived of in 1960 and the project was included in the Indo-Soviet Credit Agreement of December 1961 for execution with USSR collaboration. The washery is to have the input capacity of 3 million tonnes of raw coal, to be supplied from the Kathara Mine. A detailed project report was prepared by the Russian Collaborators and approved by the Government in July 1963, estimating the capital cost of the washery at Rs. 8.05 crores. According to the time schedule, which was a very tight one, the washery was to be completed by April, 1965; but delays occurred as even the working drawings were received from the USSR during the period May, 1963 to April, 1965. The target date for the completion had to be revised from time to time. Besides the delays in receipt of project report and the working drawings from the Russian Collaborators, delay in completion is caused by the modifications made in the plant incorporating a magnetite preparation plant and middling loading complex. The estimated capital cost has gone up from Rs. 8.05 crores to Rs. 12.26 crores. Based on the revised capital investment of Rs. 12.26 crores, the estimated cost of washing per tonne at 100 per cent load factor is now calculated at Rs. 10.49 per tonne of raw coal input, or about Rs. 21 per tonne of washed coal. Clean coal from this washery is to be supplied to Rourkela and Bhilai steel plants and middlings to Patratu Thermal Power Station. In the past Railways have shown considerable reluctance to move Kathara Coal to Patratu thermal power station owing to certain technical difficulties of rail transport, but lately they have agreed to transport Kathara coal to Patratu. It is expected that an input of 3 million tonnes of raw coal will give 1.5 million tonnes of clean coal from this washery.

19. Another coal washery was proposed at Sawang as a Third Plan Project with raw coal input capacity of 0.75 million tonnes per year. The coal supplies are to be made by Sawang Colliery. A feasibility report was prepared by the Central Fuel Research Institute in August, 1962 and the project was sanctioned in November 1962. Tenders were then invited for undertaking this washery as a turn-key job. As a result of the tenders received, the project report was revised in May, 1964 incorporating additions and modifications as well as revising the estimated cost. The Government's approval to the revised project was obtained in February, 1965 at an estimated expenditure of Rs. 2.97 crores. Contracts were made with three different parties for various sections of the plant and equipment, in May, 1965. According to the time schedule then drawn up, the date for completion of the washery was September, 1967. The latest assessment is that the plant will be completed some time in 1968. Clean coal from Sawang Washery is tentatively linked to Rourkela Steel Plant and middlings to Patratu thermal power station. The cost of washing per tonne of raw coal at 100 per cent load factor is estimated to be Rs. 10.84 and as clean coal output is expected to be about the half of raw coal input, the cost of washing per tonne of washed coal will be approximately Rs. 21 per tonne.

General—

20. In the Third Plan, the N.C.D.C. had a large programme of setting up washeries. The programme was drawn up with a view to meeting the growing needs of washed coal for the steel expansion programme. As many as 8 different projects were considered at the beginning of the Third Plan, and the N.C.D.C. was asked by the Government to undertake this washery programme in a way which could ensure that the programme did not lag behind the schedule of the steel plant expansions. Steel expansion programme did not come up to expectations and barring these four projects referred to in this chapter, the remaining projects for setting up new washeries were dropped for one reason or another.

21. Currently, the N.C.D.C. has only one washery at Kargali now in operation and three other washeries at Kathara, Gidi and Sawang under construction. It is possible that washeries may have to be set up at Sudamdih and Monidih to provide washing facilities for coal from these two deep shaft mines. In regard to Sudamdih, some preliminary work has been undertaken to investigate the washable quality of coal and to prepare a feasibility report. No firm decision has yet been taken for the setting up of this washery.

22. Our general assessment is that the N.C.D.C. has not yet built up sufficient competence and knowledge in the management of coal washeries. Optimistic time-schedules were drawn up from time to time in regard to the construction and completion of these washeries, indicating that the magnitude of work involved and the various bottlenecks in execution were not sufficiently realised. The completion dates had, therefore, to be revised from time to time and the capital charges originally estimated have also gone up for several reasons including devaluation of rupee. All the projects required considerable technical collaboration from outside India. According to the revised capital cost, investment in these washeries is expected to range from Rs. 3 crores in Sawang to Rs. 12 crores in Kathara. The corresponding turn-over in terms of washing expenses alone, ranges from Rs. 80 lakhs in Sawang to about Rs. 3 crores in Kathara. By any standards these projects are large enough to require that at the production stage they should be manned by experienced and competent factory managers. The way in which Kargali washery has taken a long period of years to get over its teething troubles and to reach the optimum output indicates the needs for building up the competent production management at the washery level. In the case of that washery, it was some years before it was realised that ropeway arrangement for transport of coal was ineffective and that good clean coal of fine size was being washed into the river, the recovery of which would have saved for the N.C.D.C. as much as Rs. 2 crores over the period November, 1958 to December 1963. Even though necessary filters have been installed for the recovery of fines, they have not worked satisfactorily and the coal fines continue to be recovered manually involving large costs. The way in which a simple solution like that of setting up a screen did not occur to persons in-charge and that even after it was agreed to install the screen, it has taken some months to be completed and the subsequent failure of thickener bushes also indicate that the washery management is not technically able to resolve such production problems.

23. Very shortly, three more washeries will be completed and commissioned. The N.C.D.C. will be well advised to ensure that the foreign collaborators, who are helping the Corporation in the installation of these washeries, maintain sufficient technical personnel in India even after the washeries are commissioned to advise and, if necessary, take charge of several problems that may arise during the teething periods until the washery reaches its optimum level of production. In the meantime, selected officials should be nominated to under-study the foreign experts so that they can take over the management and run it competently after the plant has reached the optimum level of production. The officials selected need not be mining engineers; they could be selected from any of the N.C.D.C. cadres. They should, however, have the training, experience and aptitude for running factory management. If sufficient talent is not available amongst the N.C.D.C. personnel, outside recruitment need not be ruled out. As far as Kargali Washery is concerned, the best solution now seems to be to persuade one of the technical collaborators at the three washeries under construction to nominate persons who can put the production of this washery on a satisfactory basis and run the plant at an optimum level of production for a period of say six months. In the meantime, some selected officers should associate with the foreign experts ready to take over from them at the end of this period. Besides top managers, other technical staff should be trained and kept in readiness for managing these washeries.

24. At the headquarters in Ranchi, there should be a Technical section of a small number of expert personnel in-charge of work relating to washeries. This section should provide necessary supervision and technical guidance from time to time to the manager of the washery and also inspect the washeries from time to time. The Section should be in-charge of arranging trained personnel at various levels for the washeries. Its advice will be available to the Managing Directors and the Technical Director for considering production problems of the washeries. It should also be responsible for planning work of any more washeries. In view of their close link with the production of adjacent coal mines, we do not propose that the washeries be taken out of the administrative control of the AGMs concerned. However, it is necessary to recognise that technical competence needed for the management of these washeries is of a kind different from that required for the colliery management and to strengthen the factory level management accordingly.

CHAPTER XXXII

INDUSTRIAL RELATIONS

As an organisation employing a large number of workers and office staff it is important for the N.C.D.C. to maintain high standards in labour management relations. At one time the N.C.D.C. had as many as 73,000 employees on its roll. Since then, some retrenchment and voluntary retirement have taken place of the surplus workers, specially at Giridih. Currently the number is about 66,000. From the information received from N.C.D.C. which is not complete in respect of all units, it is found that about 10·5% of the total number is 'office staff' and the rest 'industrial workers'. A large majority of the workers are directly employed on productive work; there are others whose work consists primarily in carrying out those duties in offices, workshops, stores, depots and factories, which also serve the cause of production. Amongst these, the managerial staff, from the officers in charge of collieries to the Managing Director, have the special responsibility to ensure proper deployment and discipline amongst all this staff of workers and others and to secure their reasonable well-being so as to subserve the cause of production. In a public sector enterprise like the N.C.D.C., there is no such distinction as employers and employees. All persons from the Managing Director to the miners and loaders are employees working in the same cause of stepping up the performance of the institution and its usefulness to the community. It is obvious, therefore, that there should be efforts from all sides to secure cooperative and amicable relations between the managers at various levels and the workers and office staff, so that together they devote their best efforts towards increased production and productivity and the growth of the organisation. To secure this team-work, it is essential that the workers and the office staff receive a fair treatment that their terms and conditions of service are not less favourable than those obtaining in similar institutions, that their legitimate grievances receive fair and prompt attention and that they are genuinely assisted to overcome any difficulties that may arise in the course of their work. On the part of the workers there is the corresponding obligation to do their best to improve production, avoid waste and resolve their difficulties in a peaceful manner without hindering the cause of production.

2. When the N.C.D.C. was established, the Corporation took over a large number of employees from the 11 State collieries. On taking them over, the conditions of the service of all the monthly-paid employees were to be the same as those applied to them before their transfer to the N.C.D.C. For new employees the Corporation laid down its own methods of recruitment and terms and conditions of service. These were not, however, greatly dissimilar to those applied to those taken over from the State collieries. Broadly speaking, the N.C.D.C. follows the terms and conditions of service applicable to Government staff. In regard to industrial workers, however, the wages and other terms and conditions of service are determined by the various awards given by the Labour

Tribunals and applicable to similar workers of the coal industry. The latest such award is that of the Wage Board whose recommendations were accepted and implemented by the N.C.D.C. in August, 1967.

3. By and large the N.C.D.C. followed the system of recruiting their workers locally through the employment exchanges. The powers of recruitment of workers and office staff whose emoluments did not exceed Rs. 575 per month were vested in the Area General Managers who were responsible for ensuring their preference was given to local persons. Later, from 1964 onwards, when it became necessary to retrench surplus labour, efforts were made to absorb such of them, as were willing to be transferred, to shift them to new areas, so as to minimise hardship.

4. The N.C.D.C. had also established appropriate Grievance Procedures and Works Committees as required by the labour legislation and the Code of Discipline in labour matters. These procedures have been working satisfactorily. At as many as 14 units, Joint Management Councils have been established in accordance with detailed procedure laid down in March, 1960. However, many of these Councils have either not functioned or have become ineffective. It has been stated to us that in some places, the Trade Unions have not shown much interest in the work of these Councils. We consider that these Councils should be revived and every effort made to build up cooperative working at the colliery levels through such Councils. Eventually these could very well build up the base for worker's participation in management.

5. One indication of the state of labour-management relations, is the number of man-days lost owing to strikes etc. That the record of the N.C.D.C. in respect of industrial relations is a good one, is illustrated by the following figures of the man-days lost due to strike and cessation of work in the collieries/establishments of the Corporation during the last four years—

Year							Number of mandays lost	Percentage to total number of man-days
1964-65	..	..	..	..	..	..	35,692	0.21
1965-66	..	..	..	..	..	..	5,401	0.03
1966-67	..	..	..	..	..	..	2,836	0.02
1967-68	..	..	..	..	..	..	1,54,644	

6. Out of the 35,692 man-days lost in 1964-65 a prolonged strike at Korea colliery accounted for 26,736. This strike arose out of the decision of the management to close down the working of the Korea quarry as there was no demand for the low grade coal in the quarry. The large figure of man-days lost in 1967-68 is accounted for by the 42 days' strike by headquarters' employees (31,640) and another strike at Gidi 'A' colliery (91,584) which lasted for 31 days. In both cases, the strike were organised by the National Coal Organisation Employees Association (N.C.O.E.A.)

7. As stated earlier, the N.C.D.C. has a total man-power of about 66,000 workers and office employees. The above figure of man-days lost would indicate a long period of healthy industrial relations except for a short while in May—July 1967 when certain difficulties arose at the headquarters and at Gidi 'A' colliery

8. In regard to the mining labour, laws require that there should be adequate precautions taken against the accidents and necessary safety measures are introduced. The safety measures taken and the safety record of the organisation are important in determining the state of labour relations in the mines. In this respect too, the N.C.D.C. record compares favourably with that of the coal industry as a whole.

9. In regard to the provisions of amenities like housing, medical facilities water supply, children's education, the N.C.D.C. has taken several measures to assist their workers. In most places, there are well laid out housing colonies for workers and staff. Schools and hospitals have been established, recreation clubs and canteens are provided. There is free supply of coal and water for domestic use and no charges are made for electricity consumed by lights and fans from the personnel whose pay and allowances are less than Rs. 400 per month. Even those whose emoluments exceed Rs. 400 per month, receive certain number of units of electricity free of charge. Generally, the N.C.D.C. has established its reputation in this respect as a progressive employer. There are some who consider that many of these amenities and welfare measures are, if any, unduly generous, especially as the earnings of the Corporation are low.

10. That the relations between labour and management have been good at almost all the collieries and that even at the headquarters, these had been good and cordial at any rate till 1964 as borne out by the statements made to us not only by the Project Officers, A.G.Ms. and the management of the N.C.D.C., but also by the leaders of various Trade Unions. We held discussions with many trade union leaders at the headquarters as well as at the collieries. Typical of the comments made to us in this regard is the following extract from a note submitted to us by a trade union leader—

“The N.C.D.C. being a public sector undertaking has the role of bringing social justice within the framework of socialistic pattern of society along with other public sector undertakings. It can also not be denied that in spite of being placed in adverse position of competing with dominating private sector in coal mining industry, it has to some extent come up to the standard of giving certain minimum basic necessities of life to its employees. Where an average 36 per cent workmen are having any type of accommodation in the coal mining industry, it cannot be denied that the N.C.D.C. has been able to provide proper type of accommodation to near about 60 to 70 per cent of its employees. *The efforts have been made to supply wholesome drinking water, electric connections, hospital facilities, good canteen etc. Being the public sector undertaking, it cannot consciously evade payment of workers' dues under various Awards, Rules etc. The effort has also been made to bring about workers participation in management, though still on paper only, which shows that there is no limitation with the N.C.D.C. to give social justice to its employees if they like to do so.”

* This does not mean that the remaining workers were not suitably housed. Many collieries employ local labour who have their own houses in nearby areas. We understood that there are no complaints of housing shortage at N.C.D.C. mines. Elsewhere, we have noticed that many quarters have remained unoccupied even in working mines.

11. Many other trade union leaders with different political affiliations have also expressed similar views. One of them in M.P. area said that while he had some complaints as to the ways in which the members of his own union did not receive consideration, he frankly admitted that for the coal mining workers, N.C.D.C. has introduced and maintained a very high standard as an employer as compared to many private sector collieries in the neighbouring areas. Even the National Coal Organisation Employees' Association admits that till 1964 there was a considerable degree of understanding between the office staff and the officers holding managerial positions.

12. The Project Officers and the Area General Managers have confirmed that the labour relations have on the whole been good. The main point made by them in regard to labour management is the state of indiscipline, which, in their view, is partly attributable to the existence of the multiplicity of trade unions. In almost all collieries there is more than one trade union. The existence of more than one union, each seeking to establish itself as the spokesman of the workers, often comes in the way of maintaining discipline and healthy relations between labour and management. Workers not able to get their grievances resolved through one union, often seek the help of another union and the latter in order to show what it can do, takes up the case and asks the management to reopen it. The result is that often the same dispute is brought to the discussion table more than once. There are charges and counter-charges of managerial officers favouring one particular union or the other. Sometimes, these difficulties arise not because of there being more than one union, but because certain persons become interested in securing the leadership of the trade union from the existing office bearers. These difficulties are not peculiar to the N.C.D.C. that multiplicity of unions is a factor impeding healthy industrial relations has been mentioned by several progressive employers at various tripartite labour conferences.

13. One would have thought that the nomination of a single labour union as a bargaining agent at each unit would be acceptable to leaders of trade union movement, as an important step in promoting a healthy growth of the trade union institutions. A single union should be in a position of strength in its discussions with the management. On the part of the management the existence of a single union as a bargaining agent simplifies management problems in regard to industrial relationship. It leads to better understanding between the workers and the managerial staff. It will help the progressive employers to draw the workers closer into the managerial field of responsibilities. Thus a cooperative spirit can be built up which is necessary for promoting greater production and healthy growth of an organisation.

14. The existence of a single union does not mean that individual grievances and disputes relating to them cannot be raised by persons other than office bearers of the unions. In fact, such individual grievances and disputes relating to them could be ventilated not only by the person concerned but on his behalf by any of his colleagues. On the question of terms of service, working conditions and other matters, such as participation in management, however, it will facilitate matters if there is only a single spokesman of the workers.

15. This question of multiplicity of unions is now before the National Commission of Labour. It has been suggested to the Commission by many responsible quarters that the principle of having a majority union as the single bargaining agent in various industrial units, should be given statutory recognition. We fully support this suggestion.

16. Another difficulty pointed out by the Project Officers in regard to labour relationship is that there is frequently a lack of discipline both at the collieries and in the offices of the N.C.D.C. The word 'discipline' may have different connotation with different persons. The Committee is inclined to believe that what is implied by discipline is that each employee carries out his allotted task with due diligence. Discipline does not mean that the managers should have authority to order about their subordinates as they like. As long as the staff and the workers are properly organised and their duties defined, it is important that they carry out those duties with diligence and care and without hindering the legitimate functions of others. Only then the entire organisation can present itself as a disciplined unit. It is the spirit of mutual respect for each other's duties that can bring about this state of discipline. Healthy industrial relationships cannot be promoted by autocratic methods of work by the managers, nor under threats of agitation or other pressures from the workers and the staff.

17. One frequent statement made to us by the labour unions is that the management has not been prompt in its decisions and that there have been several cases where decisions once taken have been altered or modified under pressure. According to many persons with whom we had discussions this lack of firmness and consistency is responsible for the lack of discipline.

18. One other point which Project Officers have brought to our notice is the peculiar tradition of coal mining labour, with its manifold categories and divisions, each responsible for only a certain part of the work of coal extraction and removal to the surface. This tradition of one-man one-job, leads to partial under-employment of labour and lower productivity. With rising labour wages, it has become important to promote productivity which alone can be a reasonable basis for further progressive rise in wages and incomes. It is, therefore, necessary to overcome these traditions of under-employment as early as possible. We have consulted some leaders of mining labour on this problem and agree with them that before progress is brought about in this direction, it is first essential to build up sound labour management relations.

19. As stated earlier, the labour management relations in the N.C.D.C. have been smooth upto 1964. Ever since that year, the major difficulties have arisen mainly with the one union which has its following mainly in the headquarters office and one or two collieries in the Karanpura area. Even this union, the N.C.O.E.A., in its voluminous memorandum to us has admitted that till 1964 the relationship between the management and the employees was cordial and cooperative. According to one view put to us, the difficulty since 1964 with this union of staff employees at the headquarters had its origin in the measures of decentralisation of accounts and finance work which the N.C.D.C. undertook to make at about that time. About the same time, with

the less optimistic prospect of the market for N.C.D.C. coal, the Corporation took several measures for restricting development activities. Measures were taken to restrict further recruitment and promotion and in some cadres, for a reduction in staff. All these measures caused apprehension in the minds of the headquarters employees and the activities of the N.C.O.E.A. began to gain strength. This association complains that Shri Raja's attitude towards the union and his methods of dealing with labour matters were unsatisfactory. According to the N.C.O.E.A. there was reluctance on the part of the management to discuss their grievances with their representatives. Later, in September, 1965, many points of dispute were discussed and an agreement was made. The N.C.O.E.A. contends that the terms of this agreement have not been carried out by the management. On the other hand, according to the latest progress report made by the N.C.D.C. all the assurances given in this agreement have been complied with, with the exception of those which are now under adjudication by the Labour Tribunals. The N.C.O.E.A. contends that several attempts were made by the union to seek discussions with the Managing Director and senior officers of the Corporation, but the latter gave no suitable response. It was also at about this time that the post of Chief Personnel Officer became vacant. No one has been appointed to it till now. The Deputy General Manager (Administration) who had till then been in charge of the labour management relations was also transferred sometime in 1965 and there was virtually a gap in the management for effective dealing with labour matters. It is the contention of the N.C.O.E.A. that the M.D. himself was indifferent to their demands. This feeling of dissatisfaction gathered strength and the N.C.O.E.A. then began to make several allegations of corruption, mismanagement etc. Many of the allegations made by the N.C.O.E.A. were derived from the various audit and inspection notes or other official documents to which members of this union had an easy access. The N.C.O.E.A. considered that it was their function to bring to light cases of mismanagement and corruption. According to the N.C.O.E.A., these allegations of corruption and the demand for enquiry into them, stiffened the attitude of the management officers. It is obvious that the management regarded these demands as pressure tactics on the part of the union to increase its influence and to bring undue pressure on them to accept their demands. The relationship between the union and the management which had already deteriorated became worse. In August 1966, Shri Raja, the then M.D., left N.C.D.C. and there was a gap of nearly four months after which Shri Nargundkar was appointed as Chairman and Managing Director. Shri Nargundkar could devote only part of his time to this work, as concurrently he continued to be the M.D. of the Singareni Collieries. The N.C.O.E.A. continued to ask for an enquiry into the various allegations of corruption and mismanagement. The N.C.O.E.A. also gave press publicity to some of these allegations. A charter of demands was framed and assistance was invoked of some Members of Parliament and other influential persons to press the demands. The situation deteriorated very fast. There were gheraos and stoppage of work in May, 1967. Thereafter, over a period of about six weeks since the 14th June, 1967, the staff was on strike at a time, when on the management side, there was confusion in leadership at the headquarters. It was only after the new M.D. took charge in July, 1967 that negotiations were resumed and the persons who went on strike rejoined their duties.

20. We have examined the charter of demands of N.C.O.E.A. As stated earlier, we have also gone through the details of the agreement which was signed with the N.C.O.E.A. in September 1965 and the progress report placed before us by the N.C.D.C. on its implementation. Many of the demands made in the charter of demands are matters which are not strictly within the purview of the labour union activities. The N.C.O.E.A. claims to represent all the workers and staff of the N.C.D.C. This claim is not sustainable, insofar as with one or two exceptions, a large majority of labour at almost all collieries are members of other unions. The management, therefore, was in order in refusing to discuss matters relating to the colliery labour with the N.C.O.E.A. There are a number of other demands however, which should have been discussed fully between the management and the union and firm decisions taken and implemented. The way in which the decision making was allowed to get delayed caused increasing dissatisfaction and led to greater difficulties for the Corporation.

21. In retrospect, it is clear that the absence of a Chief Personnel Officer at the headquarters over a prolonged period provides an important reason why the labour situation at Ranchi headquarters went out of control. The indifference of the management towards the growing strength of the N.C.O.E.A. during these two years provides another reason. Thirdly, there was the gap in the top management and lack of continuity in policies. There has been no senior officer in charge of administration now for nearly three years. There were delays in posting a successor to Shri Raja in the post of Managing Director and the appointment of a Managing Director who could devote only part of his time to his work, was a highly unsatisfactory measure. In the crucial months of May-July 1967, there was no Managing Director in charge and no one with requisite powers to deal with labour matters. There was thus virtually a crisis in management. We have already referred to this aspect of the organisation in our First Report and suggested how continuity should be maintained in top management. The way in which these labour matters were handled at the headquarters during 1965 to 1967, should also indicate the need to ensure that the grievances of staff and labour are taken up promptly for making firm and unambiguous decisions which should also be implemented equally firmly and promptly. We have brought out in our First Report the need to appoint a Chief Personnel Officer without delay and we have also suggested the way in which the top management should be reconstituted with a view to providing for continuity of policies.

22. One other point that emerges from the labour management relationship as it developed since 1965, is the need for the N.C.D.C. management at various levels to keep itself in close touch with the local officials of the State Government especially those dealing with public opinion and with matters of law and order. Throughout the N.C.O.E.A. strike in May-July 1967 it is believed that public opinion at Ranchi and elsewhere in Bihar State was mostly in favour of the labour union. It would appear that the N.C.D.C.'s own point of view on the various issues involved was not adequately and effectively presented either to the local officials or to the public in time. The Project officials replying to our questionnaire have pointed out that frequently they do not receive adequate assistance from the local law and order authorities in

labour matters. This apathy cannot be got over merely by bringing it to the notice of the State Governments. It is for the N.C.D.C. officials concerned to promote adequate public relations with the local officials and with the local public opinion.

23. We wish to comment on one other matter relating to this unfortunate episode. The N.C.O.E.A. claims that it has the right to agitate about the cases of alleged corruption and mismanagement in the Corporation. We consider that it is not in the interest of sound labour management relations if trade unions, as unions, resort to agitations, press propaganda, or other means of bringing pressure on the authorities in regard to matters of alleged corruption and mismanagement. We doubt if such an activity can be a legitimate part of the trade union movement. The executive officers of the Corporation have from time to time to take several executive decisions. In doing so they have necessarily to take a view of the situations which arise in their day-to-day work and to exercise their discretion in deciding on a course of action. If they are made to feel that they are constantly watched by their own subordinates, more especially persons having access to confidential papers, there would be a tendency not to take any decision and to shirk responsibilities. This state of indecision or shirking of responsibilities could cause greater damage to the interest of the Corporation. The well-being and the prospects of the workers and the staff are closely linked with those of the Corporation and, therefore, any step which would introduce a state of demoralisation amongst the executives cannot be in the interest of the workers and the staff themselves. We, therefore, consider that the labour unions should not undertake as part of their union activities, agitations and demonstrations relating to the acts of the alleged corruption, and mismanagement.

24. It is not our intention that the erring and corrupt officers should be shielded from being proceeded against. Investigation into cases of corruption or mismanagement is, however, the task of the management and it is important that effective measures are taken by management to ensure that such cases whenever discovered or investigated and where they are found to be true, they are dealt with in a deterrent manner.

25. What is necessary for this purpose is not that the labour union should become the source of information or enter on agitational practices in that behalf, but the Corporation should itself have an active vigilance department to deal with such cases as they arise, promptly and effectively.

CHAPTER XXIII

OVER REPORTING OF COAL RAISINGS AND FIRES

A. Over reporting of stocks—

In an earlier chapter we have stated that in the effort to show that the NCDC had achieved the Second Plan target, over-reporting of coal raisings was resorted to in some places. We have examined four cases which were brought to our notice. Three of them relate to this period and the fourth to 1963-64.

2. At Kathara Colliery, where the coal raisings were being calculated on the basis of the number of dumper trips, the capacity of each dumper trip which was being taken as 9·14 tonnes earlier was reckoned as 11·5 tonnes from 24th January 1961. No reasons are recorded for this revision and none have been brought to our notice; it is our belief that this was one of the measures adopted to show inflated production and prove that the project had attained the rated capacity. On this basis, the closing stock as on 31st March, 1961 was reported as 2,02,831·9 tonnes valued at about Rs. 39·94 lakhs. From May, 1961, the dumper capacity was again reckoned as 9·5 tonnes.

3. In June, 1961, the Financial Controller decided, with the approval of the M.D. that the coal stocks in 12 collieries of which Kathara was one, should be measured by surveyors. In Kathara, the survey showed the quantity at the beginning of June, 1961 to be 1,02,881·7 tonnes. Working backwards from this figure, it was computed that the pithead stock on 31st March 1961 would have been only 1,22,709·5 tonnes i.e. about 80,000 tonnes less than what was reported. The lower figure of 1,22,709·5 tonnes was the one adopted for the Profit and Loss account of the Corporation. The Planning Section of the Head Office also deputed a surveyor to measure the stocks at Kathara Colliery towards the end of May, 1961. His finding more or less agreed with that of the colliery surveyor. After seeing the measurement report, the M.D. had called for a report from the Dy. C.M.E. (Bokaro & Kargali) but we could not get the further correspondence, if any, that took place. The excess appears to have been adjusted in subsequent months by showing coal despatched from raisings as having been despatched from stock. We have not examined the financial and cost records of the colliery to ascertain whether similar manipulations had been made in these records as well. The matter should be investigated further by the Corporation.

4. These facts have been collected from available papers. No papers are available to show what explanations, if any, the local officers had provided and what action was taken thereon. If, as appears to be the case, this was a deliberate attempt to manipulate production records, serious notice should have been taken of it and the persons responsible for it suitably dealt with.

5. At Kurasia colliery, the local officers certified the closing stock on 31st March, 1961 as 1,36,027·758 tonnes. This included 39,831·294 tonnes of solid coal which had been exposed but not yet raised. The Head Office did not agree to the inclusion of this quantity in the accounts.

6. Another case of over-reporting came from Korea colliery. The certificate of closing stock of coal on 31st March, 1961 received from the Manager, Korea colliery showed a figure of 74,790 tons comprised of—

2,689·62 tons from the incline;

4,788·63 tons removed from the quarry and lying on the surface; and

67,311·74 tons exposed and blasted coal lying in the quarry.

The Accounts Department allowed the first two items and 1/6th of the total quarry coal (i.e. 1/6th of 72,000 tons viz. 12,000 tons) for the third item. The basis on which 1/6th was allowed to be counted has not been explained. The closing stock was thus computed by them as 19,478 tons. During 1961-62, there was no raising from the quarry as the railway siding was not ready. The raisings from the incline were 25,249·44 tons. Since the despatches during that year amounted to 23,962 tons, the closing stock on 31st March, 1962 should have been 20,765·44 tons. The actual stock was found on measurement to be only 11,124 tons revealing a shortage of 9,641 tons. The production from the quarry was resumed in 1962-63. During 1962-63 and 1963-64, 153,356 tonnes and 69,984 tonnes respectively, were produced. These quantities less despatches have been accounted for in the closing stocks of those years. The following points arise from the above data—

- (i) There was a discrepancy of 9,641 tons in the closing stock on 31st March, 1962.
- (ii) No coal was raised and despatched from the quarry in 1961-62, even though according to the colliery manager's certificate, more than 67,000 tons of blasted coal was lying in it.
- (iii) The quantity of blasted coal was not accounted for in the closing stocks of 1961-62 nor was it adjusted in the subsequent years.
- (iv) It is not clear as to why even one-sixth of this quantity blasted was taken to have been raised.

7. A fire took place in South Balanda Colliery in April, 1964. The committee which enquired into it came to the conclusion that during the period April to August, 1963, the groundstock had been over-reported in the books and that in the subsequent five months, there was deliberate under-reporting for the sake of adjustment. During this latter period, the colliery did not have enough orders to clear the made up stock and the freshly raised coal so that there was heavy accumulation which went into the process of spontaneous heating. The Committee expressed the opinion that if the Managing Director wanted to pin down the responsibility on the persons who measured the ground stock and reported it, it would need further probing. No such probe appears to have been undertaken.

8. We have cited these examples of over-reporting to illustrate the point which we have made in the earlier chapter how in certain circumstances, the field officers may feel tempted to boost up their performance by giving exaggerated figures of production. While the book figures were straightened out by adjustment in subsequent months in Kathara Colliery, it is not clear if such

adjustment was carried out in the other cases. Manipulation of production records is a serious matter and persons responsible for it should have been suitably dealt with. Even now, it may be worthwhile reopening these two cases at Kathara and South Balanda, where apparently first there was over-reporting and later under-reporting. Moreover, in order to prevent recurrence of such misreportings, we recommend that the Project Officers should have strict instructions to ensure the correct reporting of stocks, and to record reasons whenever there is any change in the basis of reporting as, for example when changes are made in the quantity moved per dumper trip. Besides, stock reportings should be only on the basis of measurement by a surveyor and for the purpose of verifying the stock reported at the end of the year, the Head Office should have a team of surveyors to visit all the collieries in turn for physical verification of large stocks.

Fires—

9. Fires due to spontaneous heating can occur when a large quantity of coal is stock piled at one place or when abandoned goaves are not properly sealed. It is well-known in the coal industry that such accumulation should be avoided but where it has become unavoidable, all precautions have to be taken against the outbreak of fire due to spontaneous heating. We have come across a few cases of serious fires in N.C.D.C. collieries, the experience of which proves the hazards of coal raising without arrangements for the movement of coal, the need to avoid building up pithead stocks and the importance of taking all possible precautions against fire in each and every case.

10. First, there was the fire at Kurasia Colliery in May, 1961 which resulted in the closure of the mine till June, 1962. The expenditure on control of fire amounted to about Rs. 46.89 lakhs and the sealing of the mine for about a year meant a loss of profit of some Rs. 40 or 50 lakhs. The N.C.D.C. appointed a Committee consisting of Sarvashri S. K. Nargundkar, General Manager, Singareni Collieries Co., K.N. Sinha, Director, Central Mining Research Station and R.N. Singh, Director of Production, N.C.D.C. on 30th June, 1961 to enquire into the fire. According to their report, the fire originated in the toe of the heap of old stock of coal from No. II seam which had entered the mouth of the one of the galleries. When Shri R.N. Singh who was Director of Production of the N.C.D.C. and was one of the Members of the Committee met us in September, 1967, he expressed some doubts as to whether the origin of the fire had been correctly found by the Committee. He now attributes the fire to the large quantity of blasted coal which had not been lifted. That Committee, which visited the mine on 31st July, 1961 after all the openings had been sealed, based its conclusions on the evidence placed before it by the local officials of the colliery. Its report does not indicate whether the Committee examined the Inspector of Mines who inspected the mine before the mine was closed or the Rescue Station Superintendent who was with the Rescue Team which explored the workings, before sealing, or the Inspecting Officer of the Coal Board who inspected it soon after the fire. On a reference made to the Director General of Mines Safety we have been told that, according to their records, the Kurasia fire originated in the heaps of fallen coal in the below ground workings of No. III seam due to spontaneous heat. The Committee has made no attempt to fix responsibility for negligence, if any, for this fire.

11. We have made enquiries from the present Dy. G.M. (T) of N.C.D.C. who was incharge of reopening operations in 1962 regarding the site of the fire and have been informed that during the course of underground inspection of the underground area of No. III seam a lot of fallen coal and deposition of thick coating of smoke and bituminous matter was found on the pillars in the galleries indicating that the fallen coal in the galleries developed spontaneous heating. According to him this mainly confirmed the observations of the team of Inspecting Officers who tried to inspect the underground workings during May-June, 1961 and who were affected by the obnoxious gases coming out of the mine. In his opinion regular inspection of these collieries, if done, could have shown the signs of heating in the fallen coal well in time and necessary action could have been taken if any heating had been indicated.

12. None of the Departments concerned as also the N.C.D.C. seem to have issued instructions or any information circulars to other mines so as to prevent such fires in future.

13. We have earlier in this chapter mentioned that the committee which enquired into the South Balanda fire found out that the stocks had been mis-reported. In order to cover up earlier over-reporting, the colliery is stated to have resorted to under-reporting of production, but since the orders did not materialise as expected, there was huge accumulation of stock which resulted in spontaneous combustion.

14. In Saunda colliery an old fire from the sealed off goaf area burned through the pillars between sealed stoppings on 14th March 1967 affecting the workings in two seams. Production to the extent of about 6,500 tonnes per month was affected. About 2 lakhs tonnes of extractable coal and machinery with a written down value of Rs. 3 lakhs have been trapped inside the fire area. The seam has remained closed for over a year. We enquired from the N.C.D.C. about the analysis of the atmosphere in the sealed off area. According to information furnished to us, in the six months preceding March, 1967 when the fire broke out, analysis was carried out on 23rd September 1966, 13th October, 1966, 1st December 1966 and 27th January 1967 and even these samples were not fully analysed. No pressure survey was conducted but a quantitative ventilation survey was carried out on 10th March, 1967. After the fire, we find that detailed analysis of atmosphere has been conducted almost daily. We are constrained to observe that if such detailed analysis at frequent intervals had been carried out earlier also, the spread of the fire could probably have been detected and arrested in time.

15. The Committee on Public Undertakings has observed in its report on N.C.D.C. (Paras 279 to 282 of its Tenth Report) about the Talcher fire of September, 1963 and stressed the need to have regular enquiry into every case of fire and to submit the report of the investigation to the Board of Directors and the Government. The sealed area still remains closed. No attempt seems to have been made to reopen it.

16. We suggest that in respect of fires, the following measures, amongst others should be taken:—

- (i) Stockpiling of coal should be avoided as far as possible, but where this becomes unavoidable, precautions such as minimising the

height of the heaps, isolating them by cutting trenches etc. should be observed. Arrangements should be made for sprinkling of water and taking of temperature readings.

- (ii) Wherever there are areas sealed off due to fires, regular analysis of atmosphere and pressure surveys should be conducted and the results perused carefully.
- (iii) A regular enquiry should be instituted in every case of fire. If it is a major fire like the one at Kurasia, one or more experts from outside the N.C.D.C. should be on the enquiry committee. The terms of reference of the committee should be comprehensive and in particular, it should be asked to find out as to how the fire arose and whether all possible precautions were taken. Suitable notice should be taken of any negligence in the matter.
- (iv) The report of the enquiry should be considered by the Board and if necessary by the Government and the loss should be written off under the orders of the competent authority. At present, there does not seem to be any systematic procedure established for reporting such losses to the Board and for obtaining its orders in regard to the write-off of losses.



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ANNEXURE TO CHAPTER XXIII

Extracts from the report of the Inspecting Officer of the Coal Board who inspected the Kurasia mine on 4th June, 1961.

“Adjacent to the key cut there is coal which has been loosened by blasting but has not been lifted or raised. It has been estimated that the loose heap contains about 60,000 metric tonnes of coal; this high heap of loose, broken and unsized coal occupied a large space and was in contact with solid pillars and galleries in the III seam.....The Colliery Manager stated that the smoke was first observed at the junction of the loose and the solid coal.....

I feel that there are sufficient reasons to institute a thread-bare enquiry to determine the exact cause of this *unusual* fire so that recurrence of fires and heating in similar developing mines and quarries can be prevented The seams are undoubtedly liable to spontaneous heating. In my opinion, underground collieries and pillars below the mechanised quarry over-burden benches may contain the seat of fire.....Had there been precise arrangements at the Kurasia colliery for regular and routine analysis of air samples, the fire may have been detected at its earliest stage.....The underground mine of the Kurasia colliery was laid out in the modern and efficient way and in the panel system. But there were no preparatory stoppings in any panel. Had it been so the fire could have been tackled in a much better and quicker way.”



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CHAPTER XXIV

COMPLAINTS OF MALPRACTICES AND FINANCIAL IRREGULARITIES

In the first paragraph of our terms of reference which narrated the problems requiring to be looked into, it was stated that 'the alleged malpractices and financial irregularities need also looking into.' The third paragraph of our terms of reference which sets out the task of the Committee requires us to identify and assess deficiencies and ascertain the causes therefor in respect of each of the matters referred to in the first paragraph. The Committee was also required to suggest remedial actions and improvements to be made in the policies and organisational set-up with a view to bringing about an improvement in the performance of the Corporation.

2. At our first meeting, we discussed these terms of reference and define the scope of our work. We considered that our primary task was to review the performance of the Corporation especially in regard to policies, procedures and organisational matters and to suggest measures for improvements. We considered that looking into the cases of alleged malpractices and financial irregularities was only a secondary matter. Looking to the time originally given to the Committee for making its Report—which was eventually found to be grossly insufficient even for our primary task—we came to the conclusions that we would not be able to study complaints of malpractices and irregularities in depth and/or to reach any conclusion thereon so as to fix any individual responsibilities in regard to them. We apprised the Department of Mines and Metals of this view of the scope of our work and we refrained from issuing any notice either to officials or non-officials interested in the work of the N.C.D.C., inviting complaints or specific instances of alleged malpractices and irregularities.

3. Indeed if the intention was that we should study such cases in depth and undertake fixing of individual responsibilities, a general enquiry of the type merely requiring us to 'look into alleged malpractices and financial irregularities' is hardly an effective way to carry out that intention. A proper enquiry into such cases has to be preceded by fuller investigation into errors of commission or omission which give rise to the suspicion of malpractices or irregularities. These specific actions have to be closely identified and precisely defined, evidence in their support collected by some agency (departmental or police) and presented to the Committee of Enquiry. Persons implicated by such evidence have to be given reasonable opportunities to explain their parts as to the particular allegations. It is only then that the Committee can fairly draw its conclusions and express its findings. The Committee cannot in fairness to itself undertake to collect the evidence and then proceed to adjudicate on it.

4. Our views as to the scope of our work also found support in the subsequent correspondence that we had with the Department of Mines and Metals in June, 1968. By then, the Committee on Public Undertakings of the Parliament had submitted its 10th Report for the Fourth Lok Sabha. The Report was

based on the Audit Report (Commercial) of 1967 on the accounts of the N.C.D.C. In the concluding part of its Report, the Committee had asked the Government to set up a high powered committee to go into the affairs of the N.C.D.C. in detail. The Department of Mines and Metals informed us that the matter referred to in the Report of the Public Undertakings Committee be also looked into by us. It may be stated that the Committee on Public Undertakings had specifically asked that the high powered committee should probe into the affairs of the N.C.D.C. in detail and 'the persons responsible for this sad state of affairs should be brought to book.' We sought clarification from the Department of Mines and Metals as to the intention of the Central Government in remitting this Report to us. We had, in particular, pointed out that it was not appropriate for us to reassess the matters on which the committee on Public Undertakings had already reached certain conclusions. We had also pointed out that we were not equipped to undertake any enquiries with a view 'to bringing individuals to book'. After further correspondence and consultations with the Ministry, it was made clear that our Committee was not required to look into those matters on which the Committee on Public Undertakings had already expressed their conclusions nor were we required to undertake any enquiry with a view to fixing individual responsibilities. All that the Department required us to do was to adhere to our earlier terms of reference and in doing so, take into account the comments made by the Committee on Public Undertakings. In particular, it was agreed that our Committee was required merely to point out such cases of omission or commission as we may have come across in the course of our studies without attempting to fix any individual responsibilities. It was not expected of us to study these cases in greater depth.

5. This has been our approach in our work. In other Chapters, we have pointed out a number of instances in which decisions taken are of questionable soundness. We have referred to the decision taken early in 1961 to go all out for increased production irrespective of the transport facilities and accumulated large pit-head stocks. We have referred to the large civil works programme sanctioned towards the end of 1963, even though it was by then clear that ordinary caution required that such programmes be slowed down. We have also referred to the purchases made of plant and machinery which have not been of any service to the N.C.D.C. The case of large investment made in the establishing of washery at Gidi for non-coking coal has also been referred to elsewhere in great detail. In regard to sales, we have pointed out how over a long period of five to six years no adequate action was taken for the recovery of large amount of overdues from certain middlemen; on the contrary there was continued business with the parties. Indeed, we got an impression that there has not been an adequate appreciation of the seriousness of the matter of a private party who having received the payment for coal, defaults and delays, its payment to the N.C.D.C. even at the end of a liberal credit period allowed to it and in the meantime uses of the fund for its private investment. The fact that even now there has not been adequate and effective steps taken, shows that there has been a failure either to understand the seriousness of this problem or to find remedies therefor. All along, the attitude of the authorities at various levels has been a negative one on the plea that, if any action was taken, it might affect the sales. A commercial organisation like N.C.D.C. has to find positive solutions to the problems that arise and not plead helplessness in such a manner. Apart from

these major instances of questionable decisions, we have also referred to a few other items indicating inefficiency and mis-management in relatively smaller matters.

6. While we did not invite any specific complaints as to the alleged malpractices and financial irregularities, we received a number of such complaints from several sources. There was a set of instances given to us by Shri R.N. Singh former Director of Production of the N.C.D.C. whose services were terminated by the Corporation in 1965. His complaints related to the cases of over-reporting of stocks by certain officers. We have referred to these instances in another Chapter. One other case he mentioned was that of alleged favouritism in promoting a junior officer. On enquiry, we found that no favouritism was involved in this case.

7. Besides this, the Committee also received a detailed statement from a Member of Parliament covering various aspects of labour relations in the N.C.D.C., the circumstances leading to the strike of the office employees at Ranchi in 1967 and also referring to a number of allegations of malpractices. The National Coal Organisation Employees' Association too had submitted a detailed and voluminous memorandum containing cases of alleged mis-management and corruption in the Corporation. There was a great deal of similarity and overlapping between the contents of the statement made by the member of Parliament and the cases of alleged malpractices reported in the memorandum of the N.C.O.E.A.

8. It has to be observed that by and large, many of these allegations were merely a re-production of deficiencies pointed out by various inspecting bodies such as Internal Audit of the Corporation, Commercial Audit, etc. A number of these cases have already been examined in detail by the management of the Corporation and the explanations furnished by them to the Commercial Audit have been accepted and the cases have been closed. Some of these allegations already made in detail by the Director of Commercial Audit, have been examined by the Committee on Public Undertakings of the Parliament which had reached certain conclusions in its Tenth Report (The detailed findings of this Committee are separately available to the Government for necessary action). Some allegations made in these two statements are already under detailed examination of the special Police Establishment. It was, therefore, not necessary for us to examine all these matters in detail, especially as they had been the subject matter of scrutiny by several independent authorities. Little was to be gained by making a further scrutiny. However, we selected from this material a certain number of cases of different nature for a detailed examination and the study of the relevant files of the Corporation. In all about 25 typical cases of varied nature were taken for study. On a few of these, no progress could be made as the necessary papers were not forthcoming from the Corporation in time. A brief note on each of these cases is attached as Annexure to this Chapter.

9. Judging from the number and varied nature of the complaints, it has to be concluded that there is no proper agency in the Corporation to look into the allegations of malpractice and corruption in time. The efficiency of the Corporation in this respect has to be judged from the speed with which it handles such complaints when made to the management and the promptness with which disciplinary action is taken against erring personnel. Vigilance action, to

be effective, has to be prompt and firm. Delay in investigations and enquiries is neither fair to the persons against whom the allegations are made nor does it add to the reputation of the Corporation. For the efficiency of the management, it is as important to protect the innocent from undue harassment as to punish the guilty as promptly as possible.

10. At present, the N.C.D.C. has no proper arrangements for vigilance activities and for prompt disposal of complaints as and when received. There has not been a full-time Vigilance Officer who could devote attention to this work. The Legal Adviser functions as Vigilance Officer in addition to his duties as adviser with the result that vigilance, acquires a secondary place in his work. In the course of its enquiry, the Committee was shown by a non-official witness a photostat copy of a confidential letter from the Special Police Establishment to the Vigilance Officer. On enquiry, we found that the letter had not reached the Vigilance Officer although it had been duly despatched by registered post by the Special Police Establishment in Patna. The Committee has already requested the Managing Director to investigate this leakage and take necessary action. However, this is an illustration of the weak structure of vigilance in the N.C.D.C.

11. It is needless to emphasise that a Corporation of the size of the N.C.D.C. having to deal with contractors, sales etc. should have a proper vigilance system in the headquarters as well as in the fields. There should be a full-time Vigilance Officer of sufficiently high status who will be able to deal with Vigilance and other cases of complaints promptly. The officer should work in close touch with and under the direct control of the Managing Director and he should have adequate staff to assist him in vigilance work. There should be corresponding Vigilance Officers of appropriate levels, in the areas and in various units of the Corporation.

12. Secondly, it is important that the Vigilance activities are not confined to the investigations and complaints as they arise. There are certain sensitive areas in which decisions of the officers are liable to lead to complaints of malpractices and irregularities. These refer to placing of contracts and accepting of contractor's rates, maintenance of muster-roll, sales and purchases etc. In these sensitive areas, there should be periodical inspections by officers of technical departments of the areas and of Internal Audit Department. The inspections should include a random check of related cases specially to ascertain that the discretions have been correctly exercised and the procedures followed have been such as to leave no cause for suspicion or complaint. In specific cases, such as those of proper maintenance of muster-roll, a system of surprise checks, could also ensure that no irregularities are committed. The reports made by these inspecting officers as well as those made by the Internal Audit should be available for study to the Vigilance Officer. Cases giving rise to any suspicion should be taken up for investigation without further delay. Where such investigation establishes a *prima facie* case of corruption or malpractice, there should be no hesitation or delay on the part of the management to take departmental action so as to serve as an example to others. Where necessary, an enquiry Committee may be set up so as to deal with the matter more expeditiously and in greater detail. Where, however, the allegations are found to be false or malicious, suitable action should also be taken against the complainants so that honest officers are not allowed to suffer harassment by such complaints.

ANNEXURE TO CHAPTER XXIV

A brief description of the cases looked into and the findings of the Committee are given below:—

Purchase of Diesel Generating Sets—

1. The allegation is that N.C.D.C. purchased a number of diesel generating sets at a cost of about Rs. 1·60 lakhs each in 1962, which are still lying idle in Central Stores, Barkakana. An inquiry has revealed that owing to unrealistic targets of production fixed for N.C.D.C. in the Third Plan, diesel generating sets were purchased much in excess of the needs of the Corporation and have been utilised only to a very limited extent. From the experience gathered during the Second Plan, with a view to cut out all avoidable delays in the implementation of the projects, it was considered desirable that certain standard equipments should be available in stock for issue for immediate use as soon as the projects were taken up for implementation. The lists prepared were scrutinised by a Technical Committee which agreed *inter alia* to the purchase of 12 diesel generating sets. The matter was placed before the Board of Directors and approved by them. In all, N.C.D.C. actually purchased 11 sets including two purchased earlier. Early in the year 1965, owing to continued sluggishness in the demand for coal, a review of the requirements was made by a Survey Committee of the Corporation which drew up a list of surplus sets for disposal. There was full realisation on the sets sold and out of the 5 sets awaiting disposal, two were on loan to the Madhya Pradesh Electricity Board till March, 1967. These have not been removed and N.C.D.C. is incurring ground rent. No action has yet been taken for their removal or disposal. It has to be stated that this is one of numerous instances of bulk purchase made by the N.C.D.C. so as to keep in readiness for achieving the Third Plan target fixed for it. Action taken for disposal has been tardy.

Excess Payment to the Bihar State Electricity Board to the extent of Rs. 7·35 lakhs—

2. It has been alleged that for the period from 1-12-1959 to 31-3-1963, excess payment to the extent of Rs. 7·35 lakhs has been made to the Bihar State Electricity Board in respect of supply of power to Kargali Colliery. An inquiry has revealed that on 1-12-1959, the N.C.D.C. had entered into an agreement with the Bihar State Electricity Board for supply of power to the extent of 9,000 KVA (contract demand) at 3·3 k. Volts. However, due to failure of B.S. E.B. to supply power at single point as per agreement, N.C.D.C. arranged to receive portion of power supply at 11 KV involving additional expenditure for itself in switchgear and transformers. This continued till 17-1-64, but B.S. E.B. intimated its readiness to supply power at single point from November, 1960; on the other hand, N.C.D.C. having made arrangements to receive power at two points found it impossible to change over the transmission system from 11 K.V. to 3·3 K.V. Further, from October 1961, N.C.D.C. made arrangements to receive power at single point, but B.S.E.B. in the meanwhile diverted their transformers to other consumers thus forcing N.C.D.C. to take at two points till January, 1964. In view of the supply of power at two points, the Electricity Board charged N.C.D.C. separately for these supplies instead of bulking the

consumption and sending consolidated charges, thus, resulting in excess payments due to higher slab tariffs. N.C.D.C. made these payments under protest. After a series of discussions and exchange of views between the N.C.D.C. and the Board, it was finally agreed to allow a refund of Rs. 4.86 lakhs to the N.C.D.C. giving the benefit of lower slab tariffs treating the points of supply as one for the periods when N.C.D.C. was prepared to receive power at single point but B.S.E.B. was not in a position to comply. Accordingly, N.C.D.C. has preferred its claim which is still under the consideration of the Board. While the Corporation had taken necessary steps to claim refund, it is not known why it did not insist on bulkier supplies for payment of charges at the time when B.S.E.B. requested it to agree to two points of supply, which had involved additional capital expenditure for it.

Loss of Rs. 6.6 lakhs in Korba for rehandling of coal—

3. It has been stated before the Committee that there was a loss of Rs. 6.6 lakhs in 1964-65 on account of rehandling charges of coal of Korba Pilot Quarry. In the Inspection Report of the Resident Audit Officer, Ranchi, it was noticed that between August, 1964 and November, 1965, 4.22 lakhs tonnes of pilot quarry coal were loaded manually and 5.98 lakhs tonnes by mechanical means since the installation of coal handling plant. The average cost of breaking, stacking and loading per tonne of coal loaded actually was Rs. 2 as against the cost of Rs. 0.42 if these were done mechanically. Thus, calculating at the rate of excess expenditure of Rs. 1.58 per tonne, the project incurred according to the Inspection Report, an infructuous expenditure of Rs. 8.67 lakhs by resorting to manual loading. This contention of the Audit has not been accepted by the N.C.D.C., according to whom the wagon supply by the Railways for Ghordewa Incline of Korba was irregular and that some amount of rehandling was inevitable in the absence of bunkering arrangements which would have been very costly especially for a pilot mine. In the case of Korba, the mechanical loading comes to about 41% and manual loading 59%. The manual loading to the extent of 59% appears to be on the high side. However, it is understood from the papers of N.C.D.C. that the matter is still under correspondence between the A.G.M., Korba, Internal Audit and Commercial Audit. No doubt, the matter will be fully gone into before reaching any conclusions.

Allegation of favouritism in promotions—

4. While referring to certain glaring instances of favourite promotions made in N.C.D.C., it has been alleged that an officer got two promotions within a period of 2½ months from the post of executive Engineer (Civil) as Senior Executive Engineer (Civil) and then as Superintending Engineer. The case has been looked into in detail and the Committee is of the view that the promotions made were in order, and the rules were correctly followed. Another instance of favourite promotion referred to was the case of a Stenographer, who was drawing a scale of Rs. 325—575 in Rourkela, and who was brought to N.C.D.C. in the scale of pay of Rs. 700—1250, as Secretary to Managing Director and was confirmed in the post within three months. This case has also been examined in detail. The Committee feels that the Managing Director should have liberty to select a person of his choice for the post of Secretary to M.D. so that he has on his staff a person in whom he has confidence to man this post, if necessary even by offering a scale which would be attractive enough and

thus this appointment cannot be objected to but what was wrong in this case was that the officer was made permanent. It would have been appropriate if his appointment was made co-terminous with that of the Managing Director. Further, the procedure adopted in appointing this officer and making him permanent was open to criticism.

Failure to recover demurrage from Contractors—

5. It has been pointed out that in collieries where loading is done through contractors fully or partially, N.C.D.C. failed to recover all the demurrage charges from the contractors. This allegation is based on the report of the Director of Commercial Audit, which has been looked into by the Public Undertakings Committee. In regard to Kargali-Bokaro Group of Collieries, it has been stated by the Corporation that despatches from Kargali, Bokaro and Chalkari are only made to Kargali Washery during the last five years and as such no demurrage is incurred. Regarding Jarangdih, despatches are made to the washery from January, 1965. As regards Kathara and Swang Collieries, demurrage has been apportioned between N.C.D.C. Administration and Contractor for the years 1964-65 to 1967-68 in respect of the bills received from the Railways. The Committee hopes that N.C.D.C. would take necessary action on the lines of the observations of the P.U.C.

Under-loading in Bachra Colliery—

6. It has been alleged that in cases of under-loading, no responsibility for the lapse has been fixed. The instance referred to was as follows:—

A firm lodged a claim for Rs. 1,23,965 towards cost and freight charges of 1,481 metric tons of coal short supplied by the Bachra Colliery during the period from May, 1962 to November, 1962. N.C.D.C. finally paid Rs. 1 lakh on this account subject to the condition that the firm's orders on Bachra would be retained. No action was taken to fix the responsibility for the loss to the corporation.

This case has been examined in detail. The firm had been lodging complaints since July, 1962 in respect of shortage of coal supplied to them. The consumer produced photo-stat copies of railway receipts issued on 13-10-1962 referring to under-loading in the colliery. Photographs were also produced in support of its contention regarding under-loading. The N.C.D.C.'s claim was that Bachra Coal had high specific gravity and they were correctly loading the necessary weight of coal without adhering to the loading line prescribed by the Railways. There was thus admission on the part of the N.C.D.C. that they were loading below the line prescribed by the Railways and finally, as the firm was seriously aggrieved over the shortage and as there was no ready outlet for Bachra for Coal, payment of Rs. 1 lakh to the firm was agreed to. This matter has been the subject of criticism by the Public Undertakings Committee who have recommended a thorough inquiry into the causes of under-loading and fixation of responsibility. From the study of papers, we feel that the Colliery Officers should not have entered in to direct correspondence with the aggrieved firm but rather, should have placed their view points through the Sales Office, as such direct correspondence would result, as it did in this case, in divergent replies by different officers of N.C.D.C. to the firm. It is also surprising why responsibility was not fixed when there was specific admission of short loading. It is hoped N.C.D.C. would take necessary action now.

False Muster-Roll Payments in Gidi 'A' Colliery—

7. It has been alleged that mis-appropriation of the Corporation money through false muster roll payment is rampant in all collieries and is a source of income for the corrupt officers and their agents. It is stated that an instance of such payments made in Gidi 'A' Colliery was brought to the notice of the N.C.D.C.'s Management, but no action was taken.

On the basis of a complaint, the Special Police Establishment had called for the report of N.C.D.C. in June, 1966, in respect of the allegation of false muster roll payment in the colliery. This matter was looked into by the Internal Audit of N.C.D.C., which submitted a report on 28-9-1966. After about a year, it was proposed to examine whether departmental action could be taken and the matter was referred to the Area General Manager. The A.G.M. has replied that the casual labourers do not, as a rule, furnish correct information with regard to their names, addresses, etc., and is impossible to verify whether the names and employment were fictitious or not at this distance of time. It is seen from the papers made available that a reply was sent to the S.P.E. on 6-9-1967 and it is assumed that the S.P.E. would take further necessary action on it. It is to be observed that there was considerable delay in the N.C.D.C. in making these enquiries. This is one of the instances to show that the vigilance set up at the N.C.D.C. has been weak.

Use of Gravel in place of Stone Chips—

8. It has been alleged that in Gidi Washery, civil contractors were allowed to use gravel instead of stone chips provided in the agreement. The allegation was that about 1,22,000 cubic feet of such ordinary gravel were allowed to be used affecting the strength and stability of the structure and resulting in a loss of Rs. 38,000 to the Corporation.

This was also a matter referred by the S.P.E. in 1966 to N.C.D.C. and a reply was sent to the S.P.E. on 6-9-1967. It has been certified by the technical authorities that gravel has not been used in R.C.C. or plain cement controlled concrete and construction has been done according to the specifications and any additions or alterations had the sanction of the competent authority. It has also been stated that washed gravel was used in place of stone chips only in structures where it did not affect the strength and stability of the structure by its use, and that the change-over to washed gravel in lean concrete and mud-mat from stone balast of the size $1\frac{1}{2}$ " to 2" was a sound decision.

Private Printing in N.C.D.C. Press—

9. It has been alleged that a receipt book was got printed in the N.C.D.C. Press by the wife of the Managing Director on nominal charges. This matter has been looked into and it is found that full realisation was made for the printing done in the press as per the approved rates and thus there was no loss to the Corporation. However, it may be observed that it was indiscreet to have this printing done in the N.C.D.C. Press.

Over-payment of Rs. 1.33 lakhs to Contractors in Bhurkunda Colliery—

10. It has been alleged that in Bhurkunda overpayment was made to the Contractor on account of overburden removal and the colliery records show that the contractor removed overburden of 11 lakhs cubic feet more than claimed or actually done by him.

This matter was initially taken up by the audit in view of the discrepancies noticed as per the colliery records and the contractor's records in respect of quantity of overburden removed during the period from 1-12-1956 to 31-12-1958. N.C.D.C. has contended that the contractor is expected to pay the labour in terms of the statute, but such payment has to be made on the quantity of loose overburden removed by individual workmen. In the absence of any complaint either from the workers or from the Labour Union there was no reason to presume that there was underpayment made, but at the same time there was no means of checking that all payment records produced by the contractors to the Director of Commercial Audit were full and final and would form the basis for drawing any conclusions. Under the terms of the contract N.C.D.C. has to pay the contractor on the basis of survey measurement of the quantity of overburden removed *in situ*. N.C.D.C. has to depend on the surveyors and the scientific surveying instruments and not on the contractor's records for the purpose of payment. The above explanation was furnished to the Director of Commercial Audit who dropped the Audit Para. While the Committee feels that there was nothing irregular in payment as per the Colliery records, it is rather surprising that the contractor should have produced his records to the Audit and these should have indicated that he was overpaid or that he had made large profits.

False and post-dated cheques—Case of M/s. Ramji Dass Sharma—

11. It has been pointed out that N.C.D.C. has not taken prompt action to realise huge amounts outstanding from M/s. Ramji Dass Sharma and Brothers. The case relates to the issue of five cheques by the firm between 22-9-65 and 15-2-66 which were all dishonoured by the Bank.

This matter has been looked into in detail. Towards the end of 1965, the cheques issued by the party for supplies of coal by N.C.D.C. started bouncing one by one and series of correspondence was entered into with the party without taking effective steps for recovery. The matter was taken up with the Headquarters by the Sales Office only on 26th July 1966. It was proposed by the Headquarters to take civil or criminal action and some details were required from the Sales Office on 27th August 1966. On receipt of the necessary details, legal notice was served on the party only on 20th February 1967 and a civil suit was filed on 5th January 1968. No criminal action has been taken against the party so far. One view expressed in regard to the issue of taking criminal action is that in view of the delay that has occurred and in view of the oral and written assurances said to have been given by the party, criminal action at this stage may not be feasible. However, the feasibility of taking criminal action should again be examined expeditiously by the N.C.D.C. It has to be pointed out that there was lot of delay in taking effective steps against the party both by the Sales Office and the Headquarters. The reasons for continuing the despatches to the party from November, 1965 to February, 1966, are not convincing, and this matter should be looked into in detail by the Corporation.

Case of appointment of P.R.O.—

12. Allegations have been made in regard to the qualifications of the Public Relations Officer of the Corporation. On verification of papers it is seen that the officer concerned is qualified for the post and no irregularity has been committed in the matter of his recruitment. However, in the matter of public relations, suggestions have been made elsewhere in the report.

Allegations of harassment of honest officers—

13. It has been pointed out that honest persons who had tried to function in N.C.D.C. with integrity have got no encouragement. An instance of a Deputy Superintendent of Collieries has been cited to illustrate this point. It has been alleged that the officer was transferred and every sort of harassment was meted out to him when he took measures to penalise the contractors for their failure and this officer was later put under suspension. This matter has been looked into in great detail and the Committee is of the view that there was no harassment meted out to the officer concerned as alleged and that the action taken by the N.C.D.C. has been proper.

Loading Contract in favour of Shri H. L. Soni—

14. It has been alleged that in spite of a standing contract for transportation of coal from Kathara Colliery to Kargali Washery, which was to remain in force till the completion of the washery, the management made another agreement with one H. L. Soni after cancelling the first agreement at a rate which was more than the earlier one by 3 paise per ton. A study of the files has revealed that there is no substance in the allegation, as the earlier contract was for a period of one year only and at the end of this period contract was entered into with Shri Soni after observing the necessary formalities.

Disciplinary action against Sakur Mian, Driver—

15. It has been alleged that the Deputy Superintendent of Collieries, Sawang, Charge-sheeted a driver and later put him under suspension on the ground that he failed to deposit a spare tyre on 16th December, 1966. No inquiry was conducted and later he was allowed to resume duty. It was alleged that a foreman, a favourite of the Deputy Superintendent of Collieries, had sold out the said tyre. The matter has been examined and it is seen that an inquiry was conducted against Sakur Mian and ultimately benefit of doubt was given to him. There is no record to show that he was kept under suspension nor was there any indication given by him or anyone else in the course of inquiry that the spare tyre was taken away by the foreman as alleged. However, it is observed that there was failure on the part of the management to trace the tyre or report the matter to the police for investigation.

Shortage of Stores in Bisrampur—

16. It has been alleged that on account of shortage of stores and machinery at Bisrampur Colliery, machinery and stores worth Rs. 3.12 lakhs could not be located even after two years of investigation and no responsibility for the shortage has been fixed nor any remedial measures taken as a result of which there is no check on pilferage even by manipulation of records.

The matter has been looked into and it is seen that the shortage of stores to the extent of Rs. 23 lakhs was originally reported during 1963-64 by the stock verifier deputed to carry out the verification. The shortage was not accepted by the colliery authorities and investigations were thereafter carried out from the Headquarters. The report was submitted in August, 1965, and later on as a result of further verifications, it was possible to reconcile all items except to the extent of Rs. 38,133 which could not be located. This amount was finally written off with the approval of the Board of Directors. It is thus seen that a major portion of the shortage originally noticed was located subsequently

which fact reveals that the stores records have not been kept properly and even the physical stores have not been arranged carefully. While the final loss to the Corporation has not been as much as alleged, it is not clear why no responsibility could be fixed for the shortage.

Loading Contract preferred to Mechanical Loading—

17. It has been alleged that in Kathara Colliery even though three Mechanical Loading Plants were installed at a total cost of Rs. 5.97 lakhs, considerable quantity of loading continues to be done through contractors. This matter has been examined in detail and the findings of the Committee have already been incorporated elsewhere in the report.

Award of Work to R. C. Pant for Singrauli-Pipri Road Construction—

18. The allegation was that N.C.D.C. has a tendency always to award work to favourite contractors. To illustrate the case, for construction of culverts and bridges for Singrauli-Pipri Road, the work was awarded to a person whose tender was the higher of the two received. This allegation could not be scrutinised as N.C.D.C. has stated that the matter is under examination by the S.P.E.

Alleged Loss in supply of coal to Ahmedabad Electricity Company—

19. It has been stated that in 1964-65, there was a loss of Rs. 1.80 lakhs on account of payment of penalties to Ahmedabad Electricity Company by the N.C.D.C. for short supply, demurrage, low quality etc. of coal, supplied from Kurasia. The Committee has looked into the matter in detail. It is seen that N.C.D.C. had entered into a bonus-cum-penalty agreement in respect of coal supplies to Ahmedabad Electricity Company by which bonus/penalty rates in coal prices were stipulated for supplies of coal according to the decrease/increase in ash-cum-moisture percentage beyond a particular level. There appears to be nothing in the agreement which acted against the interests of N.C.D.C., since it can claim payment only on the basis of the quality of coal supplied.

Purchase of transformers for projects closed down—

20. It has been alleged that during 1963-64, an avoidable expenditure of about Rs. 7.37 lakhs was incurred on account of purchase of five transformers for projects which were already closed down. It is seen that indents for five transformers of type 5 MVA, 33/11 KVA and two transformers of type 3 MVA, 11/3.3 KVA costing Rs. 1.47 lakhs each and Rs. 0.79 lakhs each respectively were placed for Singrauli and Ramgarh projects in April, 1963. Later in May, 1963, indent for 2 more 5 MVA transformers for Kathara washery project was placed. In March, 1965, the Singrauli Project was closed for want of demand. However, another mine in the vicinity was taken up at Jhingurdah. Similarly the development work at Ramgarh project had also to be suspended. However, the transformers were actually supplied from August to November, 1966. In reply to a query from audit, the N.C.D.C. had informed in June, 1965 that since the delivery period of transformers was very prolonged and prices were increasing day-by-day, it was not advisable to cancel the orders already placed. It is now stated that the transformers ordered for Singrauli have been partly commissioned and are required to serve the Jhingurdah project. The transformers of Ramgarh are still in Central Stores but it is proposed to send them to the South Balanda Project. The Committee feels that funds were unnecessarily locked up in pur-

chasing such of the transformers which have not been put to use so far N.C.D.C. should have taken action to cancel the supply order at the time of review of production programmes.

False Muster Roll Payment in Kathara Colliery—

21. It has been stated that in Kathara Colliery one Shri Madho Ram had received payment regularly though he was working with the brother of the Deputy Chief Mining Engineer at Pusa. It has not been possible to verify the records as the allegation was vague and did not refer to any particular period of time.

Shortage of coal at South Balanda and Kathara—

22. and 23. These have been dealt with elsewhere in the Report.

Transport of coal to Kargali Washery—

24. It has been alleged that work of transporting coal to Kargali Washery has been awarded to contractors even though the Bokaro-Kargali link siding has been ready since long. For coal transportation about 15 heavy duty trucks were also purchased by the Management and these trucks were handed over to the contractors on nominal rent. The contractors were utilising these trucks even for private work. It has not been possible to examine there allegations as related records were not made available by the N.C.D.C.

Kargali Washery output—

25. The allegations refer to the output of Kargali Washery and the unsatisfactory performance of the filter plant owing to which the annual loss on account of loss of coal fines is estimated to be about Rs. 3 lakhs. This matter has already been dealt with elsewhere in the Report.



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CHAPTER XXV

SOME ASPECTS OF ADMINISTRATION & GENERAL AND FINANCE

The concept that we have put forward in this Report is that of a decentralised administration. Many of the day-to-day decisions affecting production are to be reached at the field units in collieries, in work-shops and in washeries. Considerable powers of administrative, financial and disciplinary have already been delegated to the area offices as well as to the officers in charge of projects. It is important that these officers are encouraged to exercise these powers. Exercise of powers also mean assumption of responsibilities for decisions taken. For this reason and in order to avoid having to account for the decisions, there may be a tendency to refrain from exercising the powers. Such tendency should be discouraged. In exercising these powers and in carrying out their functions they must, of course, be guided by the policy decisions or procedures laid down from the headquarters. Where no procedures have yet been laid down, they could improvise those procedures. Ultimately, of course, it would be the duty of the headquarters office to formulate the various codes and manuals incorporating the policy procedures.

2. The decentralised working, however, does not mean absence of control from higher levels of administration. The primary responsibility for the proper functioning of the N.C.D.C. remains on the headquarters at Ranchi and in particular on the Managing Director and the Board of Directors. Decentralisation of functions must, therefore, be accompanied by systems of control. The control can take two forms. Firstly, a number of reports and returns should be prescribed. These would include reports on progress of work, cost data, production data, reports on important matters affecting labour management relations etc. There could be special reports on specific problems. Some officers have complained to us that a lot of their time is taken by the preparation and submission of far too many reports and returns. We have examined the list of reports and returns which the colliery offices have to send and the impression left on us is that the number of returns and reports is not excessive. There is, however, always scope for review and revision from time to time. By and large, the returns and reports now prescribed are such that the colliery officers as well as the officers of the area must necessarily prepare for their own efficient functioning. What is important, of course, is that these returns and reports when received are properly scrutinised at the headquarters, important points arising from them and requiring management decision are quickly brought to the notice of the decision making authorities. It is the knowledge that these returns and reports are carefully studied and taken note of, that would ensure that the local officers devoted adequate attention to their preparation, and give them a feeling that these returns are important.

3. Apart from receiving reports and returns, scrutinising them where necessary, and taking action on them where necessary, the other important method by which the headquarters should exercise its authority is by frequent

inspections. These inspections are necessary not only on the part of technical officers but also on the part of accounts and financial officers, administrative and personnel officers etc. The usefulness of the working of these officers would enhance itself if they also have the feel of local environments and if they appreciate problems arising in the day-to-day work in the local areas.

4. In addition, we have made the following important recommendations in our First Report and all that we need to do is to reiterate them without any details. These apply to headquarters as well as to other offices.

- (1) It is necessary that duties of all officers are clearly defined and understood.
- (2) The tendency to write long notes on files should be avoided. Frequently the decision should be taken by discussions and the only record kept need be that of the final decision.
- (3) There should be all around effort to promote team work. As stated in our First Report the system of team work should begin with the top-management and others below should also be encouraged to make it their practice to work as a team.
- (4) An important improvement needed in the methods of work of the Corporation at the levels is the need to ensure prompt decisions and quick implementation of the decisions. This may sound to be somewhat trite. But the fact remains that we have come across a number of cases which have lingered for several months before decisions were reached. Some of these have been referred to in other chapters of this Report; but many more have come to our notice. In fact, these delays may well be regarded as a major deficiency in the Corporation work. It has often added to the difficulties of the Corporation. The Corporation will certainly enhance its reputation if concerted effort is made to ensure that prompt decisions are made and they are quickly implemented. Any procedural changes that may be necessary to bring this about should be evolved.

5. In examining the personnel policy and the terms and conditions of the service of officers we have found that the N.C.D.C. has introduced an element of security of service for its officers. In many other public sector undertakings the services of officers can be terminated at three months' notice without giving any reason. There is no such provision in the terms and conditions of service of the various officers of the N.C.D.C. Apparently, it was thought that by providing security of service, greater loyalty could be secured. Psychologically, this security of service may well come in the way of hard work and diligence. The conditions of service do include provision for dispensing with the services of officers who are found to be inefficient within the period of seven years from their first appointment. We do not know whether this provision has ever been used. We think it would have been better if, like many other public sector undertakings there was also a provision for termination of service at three months' notice in respect of the officers of N.C.D.C. We do not know if it is now possible to introduce such a clause in the terms of service. The matter may be further explored. It should be possible to introduce such a clause atleast for the new entrants.

6. Elsewhere in this report, we have recommended that there should be a technical review of the working of the collieries to determine in each case the norms of manpower and machines employed, stores consumed etc. for the output desired from it. This would be an important step in securing economies in production cost.

7. In regard to financial and accounts procedures, we have made several recommendations for their improvement both in the First Report and in this Report. These are brought together in the following paragraphs :—

- (1) There is urgent need for bringing priced Stores Accounts up-to-date.
- (2) A system of monthly reconciliation between the cost accounts and the financial accounts should be revived as early as possible. Until the store accounts have been placed on proper footing, it should be considered whether atleast partial reconciliation could not be made and brought to the notice of the management each month.
- (3) There is no proper system for watching the progress of expenditure on development projects. There have been many cases where the project estimates have been exceeded and the management have not even come to know of this excess till after the end of the year when the annual accounts are prepared. For a proper control on capital costs of the project, it is necessary that the management (and even the Government) should have more frequent knowledge of the progress of expenditure and the progress of work on the capital projects so that any possibilities of excess over sanctioned estimates are quickly noticed and receive the consideration of sanctioning authorities. It should be realised that excessive capital costs may well make a project un-remunerative and hence frequent reviews need to be undertaken.
- (4) There should be a review each month of the cost sheets submitted by the collieries. In particular, the comparative figure of performance in respect of costs, existence of any idle employment or man-power and such other matters should be promptly brought to the notice of the top-management by a systematic study of these cost sheets.
- (5) Similarly, there should be budgetary control on the production expenditure incurred in the areas and units. In respect of productive units this control cannot be as rigid as in the Government departments. The broad principles which should govern such control have been mentioned elsewhere in this Report. Detailed procedures should be evolved and brought into effect to ensure this control. In particular, any cases of undue extravagance should quickly come to notice and these should be investigated and necessary action taken thereon.
- (6) As stated elsewhere, the Internal Audit Section should be strengthened and greater use should be made of the Internal Audit Unit for the study of the various comparative unit costs and such other matters. These would assist the management in making decisions on policy and procedural matters.

CHAPTER XXVI

CONCLUDING REMARKS

The N.C.D.C. set out to reach high targets of coal production during the Second and Third Five Year Plan and undertook a massive investment programme to achieve these targets. In ten years the production was to be raised from 3 million tons from the old State Collieries in 1955-56 to as much as 31 million tonnes by 1965-66. Of this target, over 25 million tonnes were to be raised by opening new quarries and mines in different parts of the country away from the rich coalfields of Raniganj and Jharia. When this task was undertaken, it was also anticipated that the demand for coal would continuously grow at a rapid rate not only during these two Plan periods but for a long period thereafter. All projections pointed to this high level of consumption. At that time, very few persons were prepared to believe that these targets were excessive. We have seen how persons in responsible positions expressed surprise and were caught unawares when the demand first became sluggish in 1963-64. At first it was even dismissed as a passing phase. The growth has continued to be sluggish all these four or five years.

2. When such a large demand was projected for a basic industrial material like coal, a public sector undertaking like the N.C.D.C. could not but accept the challenge and direct all its energies towards meeting it. It could not have refused to undertake the programme on the ground that it was massive, unprofitable or difficult. Projects were prepared and approved with haste and speed; mechanisation was accepted as the best means to reach the production level in the time required; bulk purchases were made of plant and equipment and large cadres of engineering officers and technicians were quickly recruited and assembled to undertake the development and working of a large number of collieries in various coalfields. Some of the necessary precautions for the sound project formulations came to be overlooked in this atmosphere of hurry and haste. Quality of project planning and implementation suffered because the Plans were based on insufficient preliminary investigations. Capital costs mounted up. While a large number of technical and other officers were recruited, not enough thought was devoted to building up a sound administrative structure at various levels of the Corporation's activities.

3. With the coal demand becoming sluggish from 1964, the N.C.D.C. had to reverse this process of development, reviewed its programmes and leave a number of projects in abeyance. Retrenchment was also undertaken. These measures, however, lacked consistency at times. They caused a sense of frustration and there was some erosion of team spirit in the administration. External difficulties like foreign exchange shortage for spare parts had begun to accentuate the problem of maintaining plant and equipment in serviceable conditions.

4. Subsequently in 1966 and 1967, there was no Managing Director for the Corporation except for a few months when an officer was appointed who could

devote only part of his time to this work. There was lack of continuity in administration and lack of consistent leadership.

5. Taking the entire period of 11 years since the inception of the N.C.D.C., the Corporation has been able to meet from its current earnings the requisite depreciation and interest charges as also a loss of about Rs. 4.27 crores in continued operation of the Giridih mines under a Government directive. It has provided as much as Rs. 27 crores from its internal surpluses, primarily depreciation, towards its investment programmes and paid as much as Rs. 17 crores in interest on Government loans. During the last four years i.e. since 1964-65 its financial results have been disappointing. Our analysis shows that these losses are attributable to the production and sales being less than even the current in-built capacity of the Corporation. The current production is about 1/3rd of the original targets and one-half of the revised targets. Even as compared to its current in-built capacity, the production is no more than two-thirds of this capacity. An increase of production and sales of another two to three million tonnes of coal per year will make it possible for the Corporation to turn the corner. A further increase will enable it to show a moderate return on investments. We consider that the N.C.D.C. is capable of reaching these levels of production.

6. In regard to its sales, one factor to which attention should be drawn is that amongst the major public sector enterprises, the N.C.D.C. is perhaps the only one which has to meet with fierce competition for its sales. Its current share of the market being about 15%, it has no dominant position in the market. Coal has been subject to price, distribution and transport control over a long period of years. We have been informed that these controls often operate to the advantage of the older and private collieries particularly those of the Raniganj and Jharia regions. Furthermore, the competition with the older and private collieries was somewhat on unequal terms inasmuch as they had long-established markets and their increased production came from existing collieries or at best by extending the production to contiguous areas. The N.C.D.C. was on the other hand, a relative new comer to the coal market and it had undertaken production in new coal mines dispersed over wider regions.

7. In considering the deficiencies and the weaknesses of the N.C.D.C. the above factors provide an essential background. In considering its faults, it is necessary to take these matters into account.

8. We were asked to assess and identify the deficiencies of the N.C.D.C., to ascertain the causes thereof and to suggest remedial measures. It was with this view that we have examined the past performance of the Corporation and of its current problems. Our findings on the various aspects of the working of the Corporation have been recorded in the preceding chapters of this Report. The principal deficiencies of the Corporation as recorded by us are that for some periods in recent years there has been lack of continuity at top administration level; important top posts have remained vacant for long; sufficient team spirit has not been developed in the management; for several years no effective coordination existed at local levels in regard to development works; financial and technical controls on project expenditure and cost of production have

been weak; inventories are large and store accounts have been grossly in arrears; maintenance of plant and equipment is inadequate and there is lack of drive in sales effort. We have pointed out certain wrong actions, questionable decisions and mistakes of commission or omission; the list cannot be exhaustive, as we have dealt with only such cases as we came across in the course of our studies. In pointing these deficiencies and faults, however, we have tried to keep in mind the difficulties which the Corporation had to face owing to the factors mentioned above.

9. Our approach has, moreover, been constructive. For whatever deficiencies we have found; we have indicated remedial measures to remove them and to avoid the repetitions of mistakes made in the past. We consider that with earnest effort these deficiencies can be removed, and the administrative structures, policies and procedures placed on a sounder footing to enable the N.C.D.C. to improve its efficiency and to take up larger tasks in future.

10. We find that many of the suggestions that we made in our First Report have been taken up for consideration by the N.C.D.C. and the Central Government. We hope the process will be speeded up.

11. Although we have dealt with many questions in a comprehensive manner it is not possible for a Committee like ours to provide answers to all the difficulties of the N.C.D.C. Necessarily such answers have to be found by the executive management of the Corporation itself which has both the proximity to those problems and has the authority to solve them. The Board of Directors and the top management, strengthened on the lines suggested by us should be fully capable of solving these problems very well. We, therefore, hope that the suggestions we have made in the First Report in this behalf would be put into effect before long.

12. A major failing of a number of public sector enterprises like the N.C.D.C. is the time taken in making decisions and implementing them. A commercial organisation like the N.C.D.C. and particularly one which has to compete for its market with the more flexible private sector organisations, cannot afford such delays.

(Sd.) G. R. KAMAT
Chairman

(Sd.) MOHAN LAL GAUTAM
Member

(Sd.) DR. S. S. SALUJA
Member

(Sd.) RAM SAHAY
Secretary

19-8-1968

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SECOND AND FINAL REPORT OF THE N.C.D.C. COMMITTEE

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Chapter I—Tasks and Performance—

1. There was no firm and settled programme of Second Plan development of collieries and during the Plan period, changes and departures were made in what might have been drawn up as an initial list of projects.

(I-11)

2. The steep shortfall in the expected demand during the Third Plan has caused serious difficulties to the coal industry, especially to those units which had undertaken significant investments on expansion programmes and to the N.C.D.C. which had undertaken a particularly large programme of investments.

(I-16)

3. The production capacity already developed is about 14·4 million tonnes and that now being developed 7·7 million tonnes, giving for all the underground and opencast mines of the Second and the Third Five Year Plans, an aggregate potential capacity of the order of 22 million tonnes. These figures do not take into account the development of 7 mines which were suspended in 1964 and which had a production target of 6 million tonnes.

(I-23)

4. That actual production is considerably less than the productive capacity which the N.C.D.C. sought to develop, provides one of the important reasons for the relatively poor performance of the Corporation in financial terms.

(I-24)

Chapter II—Development and Working of the State Collieries—

5. It should not be assumed that taking over of 11 old State collieries was of particular advantage to the N.C.D.C. in its task of rapid development of production from new mines.

(II-11)

Chapter III—Programmes of Development of New Collieries—

6. The programme for the Fourth Five Year Plan is yet to be drawn up, but it looks possible that in the non-coking coal sector it may not be necessary to undertake any new projects. It is still not clear whether any further development work needs to be undertaken by the N.C.D.C. for coking coal in the next few years.

(III-5)

Chapter IV—Quality of Project Planning and Development—

7. In so many projects of the N.C.D.C. the grade of coal has been found to be inferior to what it was assumed to be on the basis of prospecting and bore-hole data. This was the case even in respect of some shallow seams of open-cast mines. It would be useful to examine whether this was due to any defect in the collection of the data or in its interpretation so that similar defects are

not repeated in future projects and further expansion and development of existing projects. We recommend that the N.C.D.C. should take up such an investigation as soon as possible.

(IV-4)

8. There was inadequacy of data relating to the quantity of reserves and the underground geological conditions.

(IV-5)

9. For opencast mines, adequate attention was not paid to standardising the equipment in use. One effect of this non-standardisation is the difficulty that is now found to be acute in the maintenance of a wide variety of plant and machinery which were purchased at different times from different sources. Non-standardisation has also meant holding larger inventories of spare parts.

(IV-8)

10. The completion of the projects was delayed owing to factors which could have been foreseen with adequate planning. With these delays the cost also mounted up and these have also adversely affected the cost of production. In retrospect, it can also be said that the mechanisation and the use of sophisticated plant and equipment was sought to be introduced without adequate preparatory work.

(IV-10)

11. For every Project Report, there should be, at first, a Feasibility Report which in general terms indicates the economics of the project, market for its product, its essentiality in terms of the national objectives, outline of its main technical process, the facilities available for production in a particular location etc. The data given in the Feasibility Report should be adequate for obtaining administrative and financial sanction before the work is started. The Feasibility Report is to be followed by a detailed project report in which the actual working plan of the project is laid down in details. The detailed project report should also indicate the phasing of the project so as to give the best results. It will be desirable to consult before hand the Mines Safety Department and the Coal Board as to the mining methods proposed to be adopted for the project.

(IV-11)

Chapter V—Kathara Project—

12. Currently, the Kathara quarry has a serious problem of marketing its coal. Contrary to the expectation based on the geological data, the coal as quarried is found to have certain admixtures and is not better than grade II.

(V-7)

13. Besides the limiting factor of marketing and transport, Kathara is a glaring example of a large volume of earthmoving machinery remaining out of commission for want of repairs and spare parts for long periods. If the colliery is to step up its production it is essential that all this machinery should be reconditioned and put back into service.

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(V-9)

14. The working of the seam at Kathara having been restricted to the top 20 ft. the facility of the back-filling is presently not available. Therefore, the over-burden is now being carried over long distances and steep gradients. This could be one reason for large sickness of dumpers. In the absence of back-filling method, the cost of removal of over-burden is also high.

(V-10)

15. While purchases of machinery etc. were made to provide for targeted production, the Corporation would have been well advised to release to Kathara Project only as much equipment as was needed to maintain production at the current level.

(V-14)

16. In the absence of the permanent coal handling plant, departmental picking and selection could not be undertaken. The cost of loading with the help of contractors is as much as Rs. 2.51 per tonne whereas departmental handling with a permanent loading plant would not have cost more than 65 paise per tonne. The difference is large enough to reach the conclusion that even if the permanent coal handling plant at the cost of Rs. 24 lakhs had been installed as indicated in the first Project Report, the capital cost would have been more than recouped from the savings that might have occurred on the present method of loading coal with the help of contractor.

(V-15)

17. The case of Kathara Project illustrates many of the features which are found in a number of other N.C.D.C. collieries. Firstly, the difference between the geological data on which the project is based and the actual strata as found from working conditions has considerably affected the sales and production from the project. Secondly, the project was developed without sufficient regard to the availability of market for the quality of coal expected to be produced—both steam and slack—and the transport facilities that were available. Subsequent experience in respect of the restriction imposed on production by the factors of sales and transport has led to the adoption of working methods which did not provide for the best use of the men and machinery deployed on the project. Thirdly, maintenance arrangements for mechanised mines need considerably greater attention. There are indications that apart from the restrictions caused by foreign exchange difficulties and the non-availability of spare parts, the attention given to repairs and maintenance of the machinery in use, was neither prompt nor adequate.

(V-16)

18. If Kathara washery is to produce at its optimum level, it is necessary that the N.C.D.C. should now devote its attention well in advance of the completion of the washery to the marketing problems of washed coal and middlings

(V-19)

Chapter VI—Maintenance and Purchase of Equipment—

19. In the aggregate the actual availability of equipment for the projects is less than what was indicated in the Project Reports.

(VI-11)

20. The performance of the equipment has in many cases been found to be of a much lower standard than what was expected in the Project Report. Even so, their performance could be improved a great deal, if attention was given to the improvement of working conditions and maintenance. For this purpose, each project officer should be encouraged and required to study the working of the machines, its potential and to consider measures which could help in getting maximum possible output from it both in terms of time for which machines are employed and the output that could be secured from them.

(VI-13)

21. Machines worth about Rs. 80 lakhs have been purchased which were not suitable for use in Indian conditions. Adequate caution does not seem to have been exercised in these purchases. Attempts made for the disposal of these machines have been tardy and inadequate.

(VI-14)

22. Considering the lack of expert knowledge on mechanised mining, it would have been an advantage to get a few technical experts from abroad to assist in ensuring the fullest possible use of the machinery.

(VI-15)

23. We suggest that a small group of competent engineers should examine the problems at each colliery, determine the quantity of equipment which could be fully utilised at each colliery and make efforts to ensure that maintenance/repairs are undertaken quickly and completed promptly.

(VI-15)

24. We recommend that sustained effort should be made from now onwards to develop indigenous supplies and to reduce dependence on imported equipment and spare parts as early as possible.

(VI-16)

Chapter VII—Project Implementation—certain questionable decisions—

25. From many a point of view, the decision to reach target of 13.5 million tonnes during the last quarter of 1960-61, merely to prove its capacity must be regarded as unbusiness-like and detrimental to the commercial and industrial interest of the Corporation.

(VII-11)

26. The wisdom of providing all the accommodation for the staff and workers likely to be employed on a project right from the time of taking up the project is at least questionable and would require serious thought as to its necessity. This has reference to quarters built in outlying areas which have remained unoccupied.

(VII-27)

Chapter VIII—Over-Capitalisation—

27. Considering the variety of ways in which coal is mined, the different geological and other working conditions of each mine, the depth and the mineable reserves of the coal deposits, it is very difficult to lay down any standards for determining in specific terms the capital cost of a given quantum of production.

(VIII-2)

28. The date from which the projects are to be put on revenue account should first be projected in the project report itself and secondly, reviewed from time to time in the light of progress of and experience in each project.

(VIII-3)

29. We consider that for each development project there should be the fullest possible data made available for the purpose of planning, detailed working plan would be drawn and time schedule established for each major item of works and the Project Officer required to adhere to the working details in development programmes.

(VIII-6)

30. We are of the opinion that currently the Planning Section at the headquarters is weak and needs to be strengthened and put in a position of effective control over the progress of developmental projects, in its administrative and financial aspects.

(VIII-7)

31. We recommend that there should be one or more teams of technical experts made available to the Planning Section to go round to each project consider the changes and the departures that had been made from the original project report, review the production potential in the light of probable sales and transport facilities available to the project, the method of working and the operational cost, set down the tasks for improving productivity and recast the project estimate in the light of all these considerations. Revised Project Reports so prepared would then become a suitable point of reference for ensuring managerial control on cost and project development.

(VIII-8)

Chapter IX—Capital Outlay analysed—

32. More energetic attempts should be made to claim housing subsidy for miners' quarters from Coal Mines Welfare Fund and to realise the same.

(IX-5)

33. It would have been prudent for N.C.D.C. if the civil works like quarters had been staggered and developed on a phased programme along with the development of the production in the collieries.

(IX-6)

34. It is important that in their specifications, buildings for a particular colliery should provide standards which would ensure that the life of buildings as constructed corresponds with the life of the colliery.

(XI-9)

35. Special teams to be set up by the N.C.D.C. should also examine whether and to what extent civil works at each of the projects are quantitatively and qualitatively in excess of the schedule of the projects.

(IX-10)

36. A review should now be made as to whether the surplus equipment can be used and if it is not of any use either now or in the near future, then prompt action should be taken to dispose it of.

(IX-1)

37. Special teams to be set up by the N.C.D.C. should also consider the precise complement of plant and machinery which each project should have taken into account its current production and the production that it may be required to achieve in the immediate future. The teams should also examine the productivity of the machine, what it should be with the necessary servicing and maintenance, and determine the numbers required on that basis.

(IX-15)

38. The issue of new machinery to the project should be regulated strictly, in accordance with the current needs of the project plus a small reserve. The remaining machinery if ordered and delivered should remain in stock at Central or Regional Stores.

(IX-16)

39. Another field for detailed investigation by the proposed team is to see how best maximum production can be obtained from the machinery deployed at each of the projects.

(IX-17)

40. There is need to bring about a substantial reduction in the number of vehicles at the projects of N.C.D.C.

(IX-20)

41. A review should now be made for maintaining a minimum geological staff which is needed for surveys and such other work at collieries, in operation and development at present. Adding a small reserve of say 5 or 10 per cent to meet any unforeseen needs, the balance of the equipment should be disposed of and the surplus employees found employment elsewhere or retrenched.

(IX-21)

42. Specialised teams to be set up for investigation in each project, should ascertain separately the extent of capitalised losses and the extent to which any part of capital expenditure was infructuous, not representing productive assets.

(IX- 22)

Chapter X—Problems of Production—

43. Return on investments has not been adequate, principally because whereas the capital expenditure incurred on investments was determined by the targets of production potential which the N.C.D.C. undertook to achieve, the return is determined on the basis of actual production and sales. These have all along been found below the targets and even far below the production potential. To improve the financial return on capital investments, it is essential to reduce the gap between the production potential and the actual production. It is important that for some years now N.C.D.C. devotes most of its attention to resolving problems of current production and in streamlining its organisation so as to achieve the optimum utilisation of its production potential at the lowest possible cost.

(X-5)

44. The N.C.D.C. should be able to expand its market if it goes about systematically into the problems of sales, undertakes aggressive salesmanship among the consumers who are within the economic marketable area of each colliery and organise transport and production to meet the needs of each of these consumers both in terms of quality and price.

(X-6)

45. An annual plan of production should be drawn up after taking into account all those various factors which determine the quantum of production; the plan would indicate to the N.C.D.C. as to where it should concentrate its attention as to the deployment of men, equipment and management techniques in getting the best results.

(X-6)

Chapter XI—Sales Performance—

46. In relation to the Third Plan targets of coal production, the shortfall in production and sales of N.C.D.C. was more pronounced than in the private sector collieries. This may be accounted for by a number of factors which have been analysed in the Report.

(XI-1 to 5)

47. (a) It has been stated that sales orders are ahead of production. In a number of cases, it has been found, however, that there are wide variations in the volume and proportion of sale orders as between slack and steam coal on month to month basis. Optimum production cannot be arranged unless, sales of slack and steam from a colliery are in proportion to the production of slack and steam coal in the colliery concerned. Where sale orders for slack and steam are high in right proportion, and yet the production seriously lags behind sales, N.C.D.C. should enquire into such cases and consider measures for stepping up production.

(XI-6)

47. (b) It is essential to establish a close coordination between sale and production agencies at higher as well as lower levels.

(XI-6)

48. In order to expand its market in future and to tackle with confidence the sales problems which may arise from time to time in different areas and in respect of different collieries, the N.C.D.C. should prepare itself at this stage in right earnest. It is essential to formulate a systematic approach to marketing and remove the deficiencies that inhibit the sale promotion activities. The task of organising the sales procedures should be undertaken on the lines indicated in detail in the First Report.

(XI-12)

49. (a) The representatives of the Sales Department to be posted in some of the areas should look after the complaints of the consumers. If any joint inspection is called for at the destination, this should be arranged by these officers in collaboration with the collieries concerned without any loss of time and preferably within a week. There should be a system of fixing responsibility in cases of any inordinate delay. It is essential that the officers of the Sales Department and of the collieries attending to the complaints should work in a spirit of harmony and cooperation.

(XI-12)

49. (b) In view of many past complaints, which have remained unresolved over a number of years, the N.C.D.C. may find it expedient to appoint a special officer at the Headquarters for a limited period to attend to them and settle

them expeditiously. His experience of handling these complaints can also be availed of, in drawing up a regular procedure for a systematic examination of the complaints and their prompt settlement in future. (XI-13)

50. As regards realisation of sale proceeds from the Government parties while a large part of the dues is realised within 60 days, certain amounts remain outstanding beyond 60 or even 90 days. The N.C.D.C. should make its collection drive more vigorous and ensure that there are no inordinate delays in the recovery of dues from different parties. (XI-16)

51. Some disputes regarding deductions made by Government parties from coal bills have been pending for a number of years and concerted efforts do not appear to have been made by the N.C.D.C. to expedite settlement. This is hardly in conformity with the commercial practices and it is essential that vigorous efforts are made to arrive at reasonable settlements with the parties concerned. (XI-17)

52. (a) As far as possible, coal supplies to Public Undertakings and even to large private consumers should be made direct and not through the middlemen. There are, however, practical difficulties in achieving this ideal of doing direct business with all the Public Undertakings. (XI-22)

52. (b) The Committee on Public Undertakings (1967-68) have in their report on N.C.D.C. recommended that the Government should issue a directive that the Public Undertakings should not make their purchases of coal through middlemen but direct from N.C.D.C. However, there might be difficulties in issuing a Central directive to power houses most of which are in the State Sector. Such a directive would have a limited value. The N.C.D.C. should canvas its sales on the basis of its performance. After decontrol, it is in a better position to provide financial incentives to Public Undertakings to take direct supplies of coal. Moreover, it should attend to their complaints and grievances promptly and effectively. (XI-23)

53. In case certain Public Undertakings are not at all willing to take coal supplies except through middlemen, the N.C.D.C. should devise arrangements whereby it may receive direct payments from the Undertakings on the lines suggested in the Report. (XI-23)

54. (a) While making concerted efforts to do direct business with Public Undertakings and large private sector enterprises, the N.C.D.C. should also seek to develop its market fully with the assistance of the middlemen who already have a considerable sales organisation around the country. However, it is necessary to make a review of the working of the system of sale of coal through middlemen and remove whatever deficiencies have developed in the system. (XI-24)

54. (b) What has been wrong in the present sales procedure through middlemen is not that they are employed for obtaining business but that their functions and liabilities are not clearly defined except by what goes in the name of trade practices.

Any business concern and more particularly, a Government concern must reduce to writing all the terms and conditions of its sale rather than leave them

to be inferred from trade practices. Such agreements should define precisely all the respective obligations of the N.C.D.C. as well as of the middlemen.

(XI-24)

55. (a) The effective credit period enjoyed by some of the middlemen gets considerably extended beyond the official credit period of 90 days due to (a) inordinate delays in the receipt of bills from the collieries (b) delays in the receipt of cheques from the middlemen and (c) delays in negotiating/encashment of cheques particularly the out-station cheques.

(XI-26 & 27)

55. (b) It would have been in accordance with the good business practice to have conceded even a larger amount of commission or rebate than to have undertaken an uncertain liability by allowing the middlemen to make payments over extended periods of credit. The decision of N.C.D.C. to allow longer credit periods had a serious implication in so far as it afforded an opportunity to the middlemen to use the money of N.C.D.C. for their own use, may be for a limited period, after receiving the sale proceeds from actual consumers. This was partly responsible for the problem of large outstandings against middlemen particularly M/s. S. K. Kahansons. It is necessary to cut down the period of credit to bring it close to the period during which the middlemen manage to realise dues from their customers. In our view, the credit period should not exceed 45 to 60 days.

(XI-28)

56. (a) The N.C.D.C. should make a review of the present system of financial coverage provided by middlemen and take a clear decision as to the extent of business which can be allowed to different middlemen in relation to the Bank Guarantee/letter of credit. Decisions for different middlemen should be based more on the knowledge and experience of credit-worthiness of the parties concerned rather than only on the volume of orders given by the parties. Moreover, the N.C.D.C. should also examine how far the present form of Bank Guarantee is satisfactory both from legal and financial angles. In any case, the Bank Guarantee should be renewed well in advance.

(XI-29)

56. (b) While maintaining the system of Bank Guarantee or providing some such alternatives as insurance cover taken by the middlemen, the National Coal Development Corporation should examine the different situations and if necessary, it may make suitable adjustments in the rates of commission/rebates to neutralise its disadvantages and to offer better competition in coal market.

(XI-30)

57. Of all the middlemen, the outstandings beyond credit period against M/s S. K. Kahansons have all along been the largest. There has been lack of prompt and resolute action on the part of N.C.D.C. on many points in dealing with this firm. From time to time, some decisions were taken, but no effective action was taken to realise the dues, nor was the business with the firm reduced.

(XI-32)

58. One of the factors which made the comparative position of the N.C.D.C. weak in dealing with the middlemen was its dependence on only a few middlemen for disposal of its output of slack coal. In order to provide greater safeguards in future, it is necessary that concerted efforts are made by N.C.D.C. to see that to the extent the sale of coal has to be arranged through middlemen, the busi-

ness is distributed over a sufficiently large number of middlemen so that dependence on a few middlemen is avoided. What is required is that the N.C.D.C. gets out of the present situation in which it feels helpless in taking any action against the defaulting middlemen and for this purpose it is necessary to reduce dependence on a few middlemen. (XI-33)

59. There is need for speeding up the billing procedure. The billing system may be changed from fortnightly to weekly basis and it should be ensured that bills are prepared and despatched quickly after the close of a week. The Accounts and the Sales Departments should keep a close watch and all inordinate delays should be promptly investigated and responsibility for the negligence fixed. (XI-34)

60. The Unit of the Sales Department responsible for realisation of dues from the middlemen should be suitably strengthened so that the collection drive may be made more vigorous. (XI-34)

61. Interest should be charged by N.C.D.C. on outstandings beyond the credit period. The recent decision of the Board of Directors regarding levy of interest of $8\frac{1}{2}$ per cent on over-dues should be implemented effectively. In future, the agreements made by the N.C.D.C. with various parties for coal supplies should contain a stipulation regarding levy of interest on outstandings beyond the credit period. (XI-35)

62. Positive measures for expeditious recovery of outstandings should be devised by the N.C.D.C. The past record of N.C.D.C. in this respect is hardly flattering. It is surprising to find that over all these years, the N.C.D.C. has not found it possible to devise effective action and that the situation was allowed to get out of control. The seriousness of the situation where private parties are allowed to default on the obligation to the N.C.D.C. and to make use of the funds for their own purposes would not seem to have been realised either by the Sales Department, the Managing Directors or the Board of Directors, or there was inability to evolve positive action in making recoveries of these outstandings. (XI-36)

Chapter XII—Transport—

63. Concerted efforts should be made by the Railways to improve the wagon supply position in the N.C.D.C. collieries. It may be helpful if an operational plan is explored by the N.C.D.C. and the Railways jointly every year for the movement of coal from each colliery on month to month basis keeping in view the trends and prospects of coal production in different collieries. This plan should be reviewed from time to time. (XII-3)

64. To encourage coal consumers to take greater supplies of coal during slack season some financial incentive may be given; the effect of such incentive may not be large. (XII-4)

65. The wagon supplies made by the Railways are found to be irregular in regard to timings and proportion and sequence of supplies of steam and slack rakes. Irregular and erratic supply of wagons affect the production in and despatches from collieries adversely in a number of days. (XII-7—9)

66. To the extent short supplies either on Railways' or collieries account cannot be avoided, the Railways should ensure that in this process the sequence of supply of steam and slack rakes in the collieries concerned does not get unbalanced. (XII-11)

67. The Railways should consider if it is possible to supply mixed rakes for steam and slack coal particularly when the movement is in one direction for both types of coal. (XII-11)

68. The Railways should examine if the N.C.D.C. collieries in the same area and served by the same depot yard, can be treated as a group and are allowed to submit a common loading programme or otherwise divert the rakes from one colliery to another in certain situations. (XII-12)

69. The collieries may be allowed to place indents of wagons direct to the Railways Divisional Office a few days in advance of the loading day as is done by most of the private collieries. Alternatively the deficiencies of the existing system of formulation of the loading programme may be removed. (XII-13)

70. Direct communication facilities should be provided between the colliery area and the Sales Department in Calcutta. (XII-13)

71. The request of collieries for revision or cancellation of the loading programme for particular days should be entertained by the Railways 2 or 3 days in advance of the loading days. (XII-13)

72. Closer liaison should be maintained by the Railways and the Collieries at operational level so that the available pilots and empty wagons can be utilised to the best advantage of both the Railways and the collieries. (XII-14)

73. Collieries should make a concerted effort to take maximum advantage of the transport capacity available on all the days including Sundays and other holidays. (XII-16)

74. The free loading time of five hours allowed by the Railways to the collieries of Gidi A, Bhurkunda and Saunda is not adequate and has to be increased. The collieries may have adequate elbow-room if for the present, free loading time is increased from 5 to 10 hours. (XII-19)

75. From the long term point of view, it may be necessary for the collieries to make certain modifications in the loading arrangements in the collieries so that efficiency of loading operations is increased. The N.C.D.C. may examine two alternatives viz. (1) shifting of the weighbridge to bring it under the existing loading point and (2) shifting of the loading point to bring it over the existing weighbridge by using additional belt conveyers. (XII-20)

76. Single colliery rake loading is a practice which essentially benefits the Railways and hence such collieries of N.C.D.C. should not be unduly penalised when they have failed to load all the wagons of a rake by the time pilot guard arrives. In this respect they should be treated in the same way as other collieries which do not take full rake. (XII-21)

77. In regard to rationalisation scheme, the Railways should at least remove restrictions which are not governed by the question of economic use of

Railway capacities and which were earlier imposed at the instance of the Coal Controller to suit the marketing of coal of certain areas particularly Bengal-Bihar. (XII-25)

78. It is suggested that movement of coal from Korea and Rewa fields should be allowed beyond Sawai Madhopur and beyond north of Manikpur. The collieries of Banki, Surakaohar and Korba should be allowed to supply coal to industrial consumers beyond Waltair. The present system of levying siding charges in the M. P. collieries opened after 1948 is discriminatory and completely contrary to the very policy that dictated the opening of these mines in the M. P. area. It is essential that the practice which is followed in the case of the overwhelming majority of collieries situated on the Eastern and South Eastern Railways should apply to the N.C.D.C. collieries in M.P. as well. (XII-26 & 27)

Chapter XIII—Factors of Production; Manpower; Stores and Stores purchases—

79. Almost at all projects, there is scope for large improvement in productivity by raising production without raising the manpower, by better employment, and more intensive use of machinery, provided requisite sales and transport facilities are arranged for the larger production. (XIII-8)

80. Even a rough comparison shows that in a number of collieries, there is room for economy in manpower. We suggest that the matter should be more fully gone into by the teams which have been separately suggested for reviewing the project reports and bringing them up to date. (XIII-10)

81. The overall advantages lie in reviewing and streamlining purchase arrangements and the purchase procedure at the headquarter level and not by raising the local purchase powers of the local officers. (XIII-18)

82. It is understood that N.C.D.C. are considering the establishment of a number of regional stores. We consider that this proposal should be given effect to without delay. The Regional Stores Officers should be responsible for replenishment of colliery stores to the level of one month's requirement, for maintaining sufficient stocks at the regional stores to enable them to do so, and for control and regulation over stocks. The regional stores officers should be responsible for placing indents for the purchase of stores. By making regional stores officers indenting officers for stores and spare parts, delays in the purchase can be reduced. The constitution of a combined department at Headquarters for stores and purchase is recommended. (XIII-20-21)

83. We consider whatever difficulties there may have been in the past, attempts should be made to revive the earlier position whereby N.C.D.C. becomes a direct demanding officer for the DGS&D rate contracts. (XIII-24)

84. N.C.D.C. is having large inventories according to the balance sheets of the preceding few years. The attempts made so far to locate surpluses and to dispose them of have been wholly inadequate. (XIII-26)

85. It is one of the major lacunae in the N.C.D.C. that the postings in the price store ledgers are greatly in arrears and these arrears are in a confused state. (XIII-27)

86. Mechanical system of store accounts has been introduced. But the supporting preparatory arrangements have not received the attention required. All the items have not been codified. There is considerable confusion in the stores classification. These have to be sorted out and procedures established for the effective use of machine accounting. We suggest that immediate attention should be given to rectify the position.

87. We recommend that the N.C.D.C. should appoint a small committee of competent officers to draw up a programme for bringing about these improvements regarding stores within a period of say next 1 year or 18 months.
(XIII-30)

Chapter XIV—Spare parts and Workshop facilities—

88. Now that the import of spare parts have remained liberal since the latter part of 1966, the N.C.D.C. should have another look at its procedures in order to see that these do not stand in the way of making the full and prompt use of such foreign exchange as is made available to it for the import of the much needed spare parts.
(XIV-10)

89. There should be a very close liaison between the N.C.D.C. and the MAMC and H.E.C. at Ranchi in regard to the manufacture of mining equipment. Similar coordinating efforts are necessary in order to secure from the Bharat Earthmovers and other manufacturers of earthmoving machinery early deliveries of the equipment.
(XIV-11)

90. The workshops should be regarded more or less as independent unit and their work should be directly supervised at the higher level by the Chief Engineer (E&M) at Ranchi who should be made fully responsible to make these workshops achieve the maximum degree of efficiency and usefulness.
(XIV-17)

Chapter XV—Management at Colliery level—

91. The Committee, however, considers that there is substance in the suggestion that the officers who are administratively responsible for production cost, labour relations and safety should also be statutorily responsible for the observance of safety regulations. The correct remedy would be that wherever permissible the D.S.O.C. should himself assume the responsibilities of the Colliery Manager under the Mines Safety Regulations. We do not propose, however, that for this purpose the number of DSOC should be increased. What is proposed is that to the extent that the regulations permit the statutory responsibility for the safety and the administrative responsibility should be combined.
(XV-5)

92. On account of the earlier traditions and centralised working and in the absence of codes and manuals defining powers and functions of each officer in each field, there is still a noticeable lack of coordination at the colliery and Area level. It is, therefore, essential that N.C.D.C. should fully recognise the DSOC/Project Officer as the principal officer on the spot responsible for production, economy in costs, safety and labour relations as well as for carrying out all those policy instructions which were issued from time to time from the headquarters.
(XV-7 & 8)

93. We agree that codes and manuals should be prepared early for the guidance of officers working in the field as well as in the area and headquarters organisations. (XV-9)

94. There should be a system of regular inspection of the field by the supervisory officers both from the area and the headquarters level. (XV-13)

95. It should be possible to consider the performance of each officer and in the case of really good performance to award accelerated increments, honours, merit allowance, some such monetary incentives to the selected officers. An obverse of this proposal is to penalise those whose work is not up to the standard. (XV-14 & 15)

96. There are many other ways in which recognition of good work can be given. N.C.D.C. might find it desirable to introduce some system of medals, certificates of merits, or other awards to officers of the rank of DSOC and below. (XV-16)

97. We suggest that every quarter the Project Officers and the DSOC of each area should meet, discuss matters relating to their problems, receive guidance from the A.G.M. and the Technical Officers of the headquarters. Similarly there should be half yearly or at least annually a conference of all the DSOC/Project Officers at the headquarters. (XV-17)

98. DSOCs/Project Officers and those other officers who might have the potential of undertaking these responsibilities, should be given a course of management training at the recognised institutes in the country. (XV-17)

99. One of the ways of improving the technical knowledge is by means of house magazines on technical matters. (XV-17)

100. There should be seminars and conferences of junior officers and of foreman and operators at the appropriate level. (XV-18)

Chapter XVI—Administration at area level—

101. We conclude that the number of areas should be reduced from 10 to 9 by combination of Baikunthpur and Bistrampur. This does not mean of course that all the A.G.Ms. have to be of the same status. But they should have similar administrative, financial and discretionary powers. (XVI-2)

102. The number of persons working as staff officers in certain areas appears to be excessive. A review should therefore be made taking into account the quantum of work involved. (XVI-5)

103. The accounts work should be fully decentralised. The area accounts officer should be made fully responsible for compilation of accounts for the area. The existing system whereby a great deal of expenditure is incurred through imprest account is not satisfactory. (XVI-7)

104. Where regional stores are established, officers in-charge of these regional stores should be administratively under the control of the Controller of Stores and Purchase in Ranchi. (XVI-8)

105. In some areas it may be necessary to appoint special officers of the Sales Departments for contacts with local customers like power houses, settlements of disputes, finding local markets etc. These officers should be under the administrative control of the Sales Office at Calcutta. (XVI-8)

106. There should be close liaison between Area General Manager and officers like Superintendent of workshop, regional stores officer and local sales officer wherever posted. This could be brought about by frequent consultation. (XVI-9)

107. There should be a special section of Industrial Engineering Department manned with engineers having special training in industrial engineering. (XVI-11)

108. We have been informed that sometimes decisions are taken at the Headquarters without consultation with the Area General Manager. There have been cases of the A.G.M.'s views having been overruled, specially in matters relating to labour relations. We consider that it would be advisable that in all such cases the final decision should be communicated to the parties concerned by and through the A.G.M. (XVI-13)

Chapter XVII—Headquarter's Organisation—

109. There is scope for a reduction in departments like civil engineering department at headquarters. There should be an organisation and Methods Division in the Administrative Division of the headquarters to ensure that the office staff at headquarters, areas and field units is sufficient but not excessive. The Planning Department of the headquarters needs to be strengthened. The Planning Teams as well as the Planning Department should be staffed not only with the Mining Engineers but also with persons who have knowledge of markets for coal, transport facilities etc. The Research and Development Wing should also be in the charge of the Chief Engineer of the Planning Department. (XVII-5)

110. The Sales Office needs to be strengthened with a section for undertaking market surveys and for collecting market trends. (XVII-6)

111. A Washery Section may be constituted as an independent section in the charge of Functional Director (Technical). (XVII-8)

Chapter XVIII—Financial Results—

112. It may be legitimate to estimate that if the production and sales is increased by another 2 to 3 million tonnes, the N.C.D.C. will have not only come out of the position of losses on current account but would have strengthened itself sufficiently to meet part of the unabsorbed losses of the previous years and provide for any other contingencies. The capacity production and sales of some 15 million tonnes from the collieries, now on revenue account should result in the Corporation having definitely turned the corner. (XVIII-14)

113. The N.C.D.C. needs to examine carefully the future of the collieries showing losses (Giridih, Argada, Talchar, Deulbera, Bachra etc.) in order to see how they can be made financially viable. If there is no possibility of making them viable they may even have to be closed. (XVIII-22)

114. Although there is no specific directive in the case of Gidi Washery, we consider that in fairness, this is also a case where the losses that are likely to accrue from the operation of Gidi Washery be debitable to the Central Government. (XVIII-23)

115. The N.C.D.C. and the Department of Mines and Metals should explore fully with the Ministry of Petroleum and Chemicals the possibility of the establishment of a coal-based fertilizer factory in the public sector in Banki-Surakachar region. The establishment of such a unit will simplify the problem of making these two capital intensive mines financially viable. (XVIII-25)

116. We have noticed that there is no adequate budgetary control on the expenditure incurred at various units and in various offices. Employment of additional staff and workers upto certain levels of pay is decentralised to Area authorities. Without adequate budgetary control, the exercise of these powers may very easily lead to extravagance. Corresponding to the production plan there should be the annual expenditure plan with the budgetary provisions made for various items of expenditure which are required for the projected level of production. (XVIII-31-32).

117. In addition to the budgetary control over expenditure, the N.C.D.C. should work out, in relation to the working conditions at each mine, norms and standards as to the complement of manpower and machinery to be employed for expected optimum rate of production. Similar norms should be prescribed for the quantity of explosives used or stores consumed. (XVIII-33)

Chapter XIX—Training and Research—

118. It is suggested that the Corporation should give intensive training to all of its employees and refreshers' training by—(a) Reorganising its training schools and mine mechanisation training institutes to impart intensive training to its skilled workers and supervisory staff; (b) giving training within the industry upto the level of Assistant Colliery Manager; (c) for Colliery Managers particularly those who are promising, an opportunity for broadening their outlook and learning modern system of management at institute of Management at Calcutta and Ahmedabad and for higher level personnel at the Administrative Staff College at Hyderabad. (XIX-5-6-7)

119. We feel that the important reasons for the breakdown of machinery are inadequately trained machine operators and poor maintenance. Training institutions may be started at Barkakana and Korba Workshops for machine operators and maintenance crews. The importance of preventive maintenance should be emphasised and the efficiency of operators and maintenance person unel including officers should be judged by the number of hours machines are run without a break down. (XIX-7-8)

120. There should be short-term courses for supervisors giving them training in theoretical and practical aspects of their respective branches. These could be arranged in the respective areas. Suitable training arrangements should also be made for store-keepers and stores officers, cost accountants and cost accounts officers, and the technical personnel in other cadres.

(XIX-8)

121. It is suggested that the Corporation may institute a scholarship scheme under which bright young boys of its employees may be sponsored for mining/technical courses under a bond to serve the Corporation for a certain minimum period.

(XIX-8)

122. We feel that a large Corporation like N.C.D.C. should have a Research Wing of its own to look to its technical problems requiring immediate solutions.

(XIX-9)

123. N.C.D.C. should have adequate library facilities by which it should subscribe for larger number of technical papers. A monthly digest of technical papers may be prepared and circulated for creating abiding interest in its technical officers in the mining field.

124. Following are suggested—

- (i) Seminars may be held where different officers may read papers and initiate discussion on specific practical problems, relate their own experience of handling such problems and learn about how others have handled the same and other problems in the course of their work.
- (ii) A house-magazine, quarterly to begin with, devoted to technical subjects. Articles on various technical matters could be contributed to this magazine by the officers and other employees of the Corporation.
- (iii) If sufficient interest and technical thought develops as a result of the above two measures, the N.C.D.C. may undertake publication of technical bulletins on a variety of subjects which could be of interest to the managers, officers and workers of the Mining Industry as well.

(XIX-9)

Chapter XX—Coking Coal—

125. It would be desirable if, in the interest of conservation of the coking coal reserves, Government pursues the scheme of amalgamation of small holdings vigorously and also does not grant fresh licences for small collieries for starting new enterprises or for expansion.

(XX-3)

126. For Monidih and Sudamdih, an efficient management has to be set up to achieve the targeted production in the minimum possible time. We trust that the advice and the assistance of the Polish experts would be available also during the initial periods after production commences.

(XX-4)

127. With the likely investment of more than Rs. 50 crores and has the problems of collieries may be different from those of other N.C.D.C. collieries, these two mines by themselves may prove to be big enough to require the constitution of a separate company. It may be examined at a later date whether

such a company would be an economically viable proposition. For the present our suggestion is that for these projects, viz., Sudamdih and Monidih, the Area General Manager incharge should be vested with adequate powers to take 'on the spot' decisions, on all matters affecting the progress of work and has the assistance of competent staff who have proved their ability during the construction stage. Among the problems which this officer should tackle right from now is a long term arrangement for the steady and assured supply of spare parts, replacement etc. It would be useful if the M.A.M.C. which also has Polish collaboration is closely associated with the provision of machinery for these mines. (XX-5)

128. It may become necessary for the deep mines at Sudamdih and Monidih to be given a special price or their production subsidised so as to be competitive. (XX-6)

129. We suggest that the rates of subsidy being granted by Coal Board should be reviewed in the light of conditions prevailing and likely to prevail at Sudamdih and Monidih and, if necessary, suitably revised keeping in view the fact that these mines are being specifically developed to provide the much needed prime coking coal. (XX-7)

130. We recommend that before taking up any more deep mines, their economics vis-a-vis intensive exploitation of the 'easier' reserves in the possession of the private sector should be carefully gone into, in consultation with the steel plants, the Coal Board and the owners of these collieries. (XX-7)

Chapter XXI—Coal Washeries—

131. Normally the agreement between the washery and the consumer regarding price should be arrived at by direct negotiations; but if they fail to produce an agreed conclusion within a period of say, six months, the Government should make arrangements for fair and prompt decision in the matter, if necessary, by setting up a committee or a referee to reach decision. It is not proper that such inter-unit disputes between the public undertakings should be allowed to drag on for years as in the case of Kargali washed coal. The referee and the committee should be free to evolve fair principles to decide the issues involved. (XXI-3)

132. For various reasons the Bi-cable Ropeway installed at a cost of Rs. 13 lakhs was discarded. It is not understood why such difficulties could not be foreseen and rectified. The alternative system of transport is by road and the cost per tonne during 1966-67 was Rs. 2.31 in case of chute loading and Rs. 3.51 in the case of hand loading. Possibilities of transport by pipe-line may be explored. (XXI-4)

133. The main points regarding slurry at Kargali Washery which need consideration are :

- (i) Such a large washery was designed and erected with so small a capacity for recovery of fines (15 tonnes per hour if all the three old

filters are used whereas the quantity of fines coming at the original capacity was 50 tonnes per hour). An effort should be made to increase the capacity of slurry circuit.

- (ii) No attempt was made to recover the fines going into the slurry for such a long time resulting in a great loss (estimated at Rs. 2 crores).
- (iii) During the expansion scheme the capacity of slurry circuit was increased to 68 tonnes per hour and this has been available since March, 1966, but it is not being used effectively. The expenditure since then on the manual recovery of the fines is about Rs. 27 lakhs.
- (iv) During the enquiry this was taken up in detail and ultimately it was decided to instal two more screens which were to result in stoppage of manual collection by January, 1968 but the work has been delayed due to one reason or other.
- (v) The percentage of 'fines' recovered and the amounts paid fluctuate widely from month to month. It is rather strange that the percentage of 'fine coal' could vary so widely. A strict check should have been exercised over the quantities reported to have been transported by the contractor.

From our examination of the questions and answers received by us as well as the absence of a sense of urgency on the part of officials concerned to adopt simple remedies which would have saved the Corporation about Rs. 8 lakhs per year, we have reasons to conclude that the arrangement for manual recovery of the slurry requires detailed probing by the Managing Director with the assistance of some expert in coal washeries from outside the NCDC.

(XXI-10)

134. In the course of examination of the proposal for sanctioning the Gidi Washery Project several questions were raised by the Ministry of Mines and Metals as well as the Ministry of Finance, but there is no record to show that the remunerativeness of the project for the NCDC was touched upon. It is rather surprising to note that though the Memo. submitted to Expenditure Finance Committee (of which the Finance Secretary was the Chairman) contained a specific heading 'state the estimated yield and economic implications' no material information was given except to say that the cost of washing would be Rs. 6.22 per tonne.

(XXI-12)

135. We suggest that in future no washery project should be sanctioned unless its economics are worked out and a clear appreciation made that the consumer would be willing to meet the cost of washing.

(XXI-13)

136. The firm market for Gidi washed coal is not now expected to be more than one million tonnes leaving a balance of 0.8 million tonnes for which there is no prospective market. In addition there is also the problem of finding reasonable price for the washed coal, especially when raw blendable coal of comparative quality continues to be available in adequate quantities.

(XXI-16)

137. No formal directive was issued to NCDC to take up Gidi Washery. The correspondence shows that as far as NCDC was concerned the insistence of the Government was as good as directive. We recommend that in the case of Gidi Washery project, the financial losses that may accrue on the working of this project be entirely met from the central revenues and should not affect the profit and loss account of the NCDC.

(XXI-17)

138. The corresponding turn over in terms of washing expenses alone ranges from Rs. 80 lakhs in Sawang to about Rs. 3 crores in Kathara. By any standards these projects are large enough to require that at the production stage they should be manned by experienced and competent factory managers.

(XXI-22)

139. The NCDC will be well advised to ensure that the foreign collaborators who are helping the Corporation in the installation of these washeries, maintain sufficient technical personnel in India even after the washeries are commissioned to advise and, if necessary, take charge of several problems that may arise during the teething periods until the washery reaches its optimum level of production. In the meantime, selected officials should be nominated to under study the foreign experts so that they can take over the management and run it competently after the plant has reached optimum level of production. These officials could be selected from any of the NCDC cadres.

(XXI-23)

140. As far as Kargali Washery is concerned, the best solution now seems to be to persuade one of the technical collaborators at the three washeries under construction, to nominate persons who can put the production of this washery on a satisfactory basis and run the plant at an optimum level of production for a period of six months. In the mean time some selected officers should be nominated to understudy the foreign experts so that they can take over the management from the foreign experts at the end of the period. Besides, top managers and other technical staff should be kept in readiness for managing these washeries.

(XXI-23)

141. There should be a technical section of a small number of expert personnel in charge of work relating to washeries at the headquarters at Ranchi.

(XXI-24)

Chapter XXII—Industrial Relations—

142. We consider that these joint management councils should be revived and every effort made to built up cooperative working at the colliery levels through such councils. Eventually these could very well built up the base for workers participation in management.

(XXII-4)

143. We have been informed by management and the labour union that labour-management relations in National Coal Development Corporation have been good. Figures of mandays lost due to strike and cessation of work in the collieries/establishments of National Coal Development Corporation during

the last four years showed that the record of National Coal Development Corporation in respect of industrial relations was a good one, except in respect of certain strikes at the headquarters in Ranchi and at Gidi A colliery in May-July, 1967. (XXII-5)

144. The safety measures taken and the safety record of the organisation are important in determining the state of labour relations in the mines. In this respect too the National Coal Development Corporation record compares favourably with that of the coal industry as a whole. (XXII-8)

145. In respect of amenities and welfare measures generally the National Coal Development Corporation has established its reputation as a progressive employer. Several labour unions have admitted this fact. There are many who considered that many of these amenities and welfare measures are, if any, unduly generous, especially as the earnings of the Corporation are low (XXII-9)

146. The question of multiplicity of unions is now before the National Commission of Labour. It has been suggested to the Commission by many responsible quarters that the principle of having a majority union as the single bargaining agent in various industrial units, should be given statutory recognition. We fully support this suggestion. (XXII-15)

147. Over a period of six weeks since the 14th June 1967 the staff of the Headquarters was on strike at a time when, on the management side there was confusion in leadership at the headquarters. (XXII-19)

148. The way in which labour matters were handled at the headquarters during 1965 to 1967 should also indicate the need to ensure that the grievances of staff and labour are taken up promptly for making firm and unambiguous decisions which should also be implemented equally quickly and promptly. (XXII-21)

149. One other point that emerges from the labour management relationship as it developed since 1965, is the need for the National Coal Development Corporation management at various levels to keep itself in close touch with the local officials of the State Government especially those dealing with public opinion and with matters of law and order. It is for the National Coal Development Corporation officials concerned to promote adequate public relation with the local officials and with the local public opinion. (XXII-22)

150. We consider that labour unions should not undertake as part of their union activities agitations, and demonstrations relating to the acts of the alleged corruption and mismanagement. (XXII-24)

151. It is important that effective measures are taken by the management to ensure that cases of corruption and mismanagement whenever discovered are investigated and where they are found to be true, they are dealt with in a deterrent manner. (XXII-24)

Chapter XXIII—Over reporting of Coal Stocks and Fines—

152. There was over reporting at Kathara. The excess appears to have been adjusted in subsequent months by showing coal despatched from raisings as having been despatched from stock. We have not examined the financial and cash records of the colliery to ascertain whether similar manipulations had been made in these records as well. The matter should be investigated further by the Corporation. (XXIII-3)

153. Manipulation of production records is a serious matter and persons responsible for it should have been suitably dealt with. Even now, it may be worthwhile re-opening the two cases at Kathara and South Balandra where apparently first there was over-reporting and later under-reporting. Moreover, in order to prevent recurrence of such mis-reportings, we recommend that the Project Officers should have strict instructions to ensure the correct reporting of stocks, and to record reasons whenever there is any change in the basis of reporting for example when changes are made in the quantity moved per dumper trip. For the purpose of verifying the stock reported at the end of the year the Head office should have a team of surveyors to visit all the collieries in turn for verification of large stocks. (XXIII-7)

154. In respect of fire at Saunda colliery, we are constrained to observe that if detailed analysis of atmosphere had been conducted at frequent intervals earlier also, the fire could probably have been detected and arrested in time. (XXIII-13)

155. We suggest that in respect of fires, the following measures, amongst others should be taken—

- (i) Stockpiling of coal should be avoided as far as possible but where this becomes unavoidable precautions such as minimising the height of the heap, isolating them by cutting trenches etc. should be observed. Arrangements should be made for sprinkling of water and taking of temperature readings.
- (ii) Wherever there are areas sealed off due to fires, regular analysis of atmosphere and pressure surveys should be conducted and the results perused carefully.
- (iii) A regular enquiry should be instituted in every case of fire. If it is a major fire like the one at Kurasia, one or more experts from outside the N.C.D.C. should be on the enquiry committee. The terms of reference of the committee should be comprehensive and in particular, it should be asked to find out as to how the fire arose and whether all possible precautions were taken. Suitable notice should be taken for any negligence in the matter.
- (iv) The report of the enquiry should be considered by the Board and if necessary by the Government and the loss should be written off under the orders of the competent authority. At present there does not seem to be any systematic procedure established for reporting such losses to Board and for obtaining its orders in regard to the write-off of losses. (XXIII-25)

Chapter XXIV—Complaints of Malpractices and Financial Irregularities—

156. Judging from the number and varied nature of the complaints it has been concluded that there is no proper agency in the Corporation to look into the allegations and malpractices in time. The efficiency of the Corporation in this respect has to be judged from the speed with which it handles such complaints when made to the management and the promptness with which disciplinary action is taken against erring personnel. Vigilance action to be effective has to be prompt and firm.

(XXIV-9)

157. It is needless to emphasise that a corporation of the size of the National Coal Development Corporation having to deal with contractors, sales, etc. should have a proper vigilance system in the headquarters as well as in the fields. There should be a full time Vigilance Officer of sufficiently high status who will be dealing with vigilance and other cases of complaints promptly. The officer should work in close touch with and under the direct control of the Managing Director and should have adequate staff to assist him in vigilance work. There should be corresponding Vigilance Officers at appropriate level in the area and various units of the Corporation.

(XXIV-11)

158. There are certain sensitive areas in which decisions of the officers are liable to lead to complaints of malpractices and irregularities. These referred to placing of contracts, maintenance of muster-roll, sales, purchase, etc. In these sensitive areas there should be periodical inspections by officers of technical departments of the areas and internal audit department. The reports made by these inspecting officers as well as those made by the internal audit should be available for study to the Vigilance Officer.

(XXIV-12)

159. Where an investigation establishes a *prima facie* case of corruption or malpractices, there should be no hesitation or delay on the part of the management to take departmental action so as to serve as an example to others.

(XXIV-12)

160. Where allegations against officers are found to be false or malicious suitable action should also be taken against the complainants so that honest officers are not allowed to suffer harassment by such complaints.

(XXIV-12)

Chapter XXV—Some Aspects of Administration—General and Finance—

161. The concept that we have put forward in this respect is that of decentralised administration. Considerable powers administrative, financial and disciplinary have already been delegated to the area officers as well as to officers in charge of projects. It is important that these officers are encouraged to exercise these powers and in this regard they must be guided by the policy decisions or procedures laid down from the Headquarters.

(XXV-1)

162. Decentralisation of functions must be accompanied by systems of control in the form of reports on progress of work, cost data, production data, labour management relations etc. The returns and reports when received be properly scrutinized at the Headquarter and points arising from them quickly brought to the notice of decision making authorities. Secondly, there should be regular systems of inspection and field visits by senior officers from the Areas and the Headquarters.

(XXV-2-3)

163. It would have been better if, like many other public sector undertakings there was also a provision for termination of service at three months' notice in respect of the officers of National Coal Development Corporation. This possibility may be explored. It should be possible to introduce such a clause at least for the new entrants

(XXV-5)

164. In regard to financial and accounts procedures, the recommendations made in the first report and in other chapters of this report are brought together below—

- (i) There is urgent need for bringing priced store accounts upto-date.
- (ii) The system of monthly reconciliation between the cost accounts and the financial accounts should be revived as early as possible. Until the store accounts have been placed on proper footing, it should be considered whether at least partial reconciliation could not be made and brought to the notice of the management each month.
- (iii) Frequent reviews of the progress of expenditure on each project should be undertaken so that any excess over the sanctioned estimates are quickly noticed and considered by the sanctioning authorities. Excessive capital costs may well make a project unremunerative.
- (iv) There should be a review each month of the cost sheets submitted by the collieries. In particular, the comparative figures of performance in respect of costs, existence of any idle employment or manpower and such other matters should be promptly brought to the notice of the top management by a systematic study of the cost sheets.
- (v) There should be budgetary control on the production expenditure incurred in the areas and units. Detailed procedure should be evolved and brought into effect to ensure this control. Any cases of undue extravagance should quickly come to notice and these should be investigated and necessary action taken thereon.
- (vi) The Internal Audit Section should be strengthened and greater use made of it for the study of the various comparative unit costs and such other matters.

APPENDIX I

GOVERNMENT OF INDIA

MINISTRY OF STEEL, MINES & METALS (DEPARTMENT OF MINES AND METALS)

New Delhi, the 22nd July, 1967

RESOLUTION

No. C2-8(7)/67—The performance of the National Coal Development Corporation Ltd., Ranchi (a public sector undertaking) has been causing concern for some time past inasmuch as production has not been commensurate with the investment made and there is no adequate return on capital invested. There may be scope for improvement in regard to such matters as planning, administrative and organisational set-up staffing, procurement of equipment, control of stores, financial and budgetary control management-employees relationship and marketing. The alleged malpractices and financial irregularities need also looking into.

Government feel that an independent review of these problems, among other issues, is likely to be helpful at this stage in order to enable remedial actions to be taken for removing any deficiencies which may be affecting overall and detailed performance of the various units of the National Coal Development Corporation. Government, therefore, hereby appoints a Committee consisting of—

1. Shri G. R. Kamat, I.C.S., formerly Secretary, Planning Commission.—*Chairman.*
2. Shri Mohan Lal Gautam, M.L.A. (U.P.)—*Member.*
3. Shri S. S. Saluja, Acting Principal, College of Mining and Metallurgy, Banaras Hindu University, Varanasi —*Member.*

with its headquarters at New Delhi to conduct such a review.

Shri Ram Sahay, Under Secretary, Department of Mines and Metals will be the Secretary of the Committee.

3. The Committee will identify and assess deficiencies and ascertain the causes therefor in respect of each of the spheres among others, referred to in paragraph 1 above. The Committee will also indicate what remedial action can be taken and what improvements, if any, be made in the policy and organisational set up to ensure full utilisation of the installed capacity, not only to bring about efficient performance immediately but also to gear up the organisation to take up additional responsibilities in future.

4. The Committee will report to Government by the 31st October, 1967.*

(Sd.) N. C. SHRIVASTAVA

Secretary to the Government of India.

* This date was subsequently extended up to 20th August, 1968.

APPENDIX II

List of N.C.D.C. officials who sent replies to the questionnaire to the N.C.D.C. Committee

1. Shri C. Balram, Deputy General Manager (Tech.).
2. Shri S. K. Verma, Chief of Administration.
3. Shri G. S. P. Sinha, Legal Adviser.
4. Shri S. B. Ghosal, Chief Purchase Officer.
5. Shri G. J. Rosario, Controller of Stores.
6. Shri I. S. Jain, A. G. M., Umrer.
7. Shri S. Yegneswaran, A. G. M. Bokaro & Kargali.
8. Shri A. N. Banerjee, A. G. M., Karanpura.
9. Shri T. V. Laxmanan, Additional A. G. M., Birsampur.
10. Shri J. M. Dhanwan, A. G. M., Talcher.
11. Shri N. Chandra, A. G. M., Korba.
12. Shri S. K. Mukherjee, Additional A. G. M., Giridih.
13. Shri S. K. Bose, Additional A. G. M., Sudamdih.
14. Shri R. G. Moshendru, Additional A. G. M., Singrauli.
15. Shri P. C. A. Paul, Additional A. G. M., Kurasia.
16. Shri T. Singh, Executive Engineer, Gidi Washery.
17. Shri B. N. Bose, Executive Engineer, Kurasia.
18. Shri D. S. Mathur, Executive Engineer, Korba.
- 18-A. Shri M. V. Rao, Suptg. Engineer, (E.&M.), Kargali.
- 18-B. Shri M. R. Srinivasan, Suptdg. Engineer (E&M.), Baikunthpur.
- 18-C. Shri J. C. Gupta, Suptdg. Engineer, (E&M.), Kargali.
19. Shri R. K. Das Gupta, Executive Engineer, Bhurkunda.
20. Shri H. K. L. Jois, Executive Engineer, Surkachar.
21. Shri K. Chandra, Executive Engineer, Duman Hill.
22. Shri S. R. Mandat, Executive Engineer, Monidih.
23. Shri Ranjit Singh, Executive Engineer, Bachra.
24. Shri M. H. R. Sharma, Executive Engineer, Kathara Washery.
25. Shri A. B. S. Chauhan, Executive Engineer, MMTI, Bhurkunda.
26. Shri A. B. Guha, Executive Engineer, Kurasia.
27. Shri V. G. Natrajan, Executive Engineer, Bhurkunda.
28. Shri R. Ramakrishnan, Executive Engineer, Bokaro.
29. Shri V. Madhusudan, Executive Engineer, Manikpur.
30. Shri H.G. Gundu Rao, Executive Engineer, Bhurkunda.
31. Shri K. J. N. Rao, Executive Engineer, Barkakana.
32. Shri M. L. Karwal, Executive Engineer, Korba/Manikpur.
33. Shri E. J. Jacob, Executive Engineer, Korba Workshop.
34. Shri R. V. Mishra, Executive Engineer (Civil), Talcher.
35. Shri A. M. Samanta, Executive Engineer (Civil), Monidih.
36. Shri S. N. Sinha, Executive Engineer (Civil), Gidi Washery.
37. Dr. R. N. Singh, Headquarter Officer, Ranchi.
38. Shri B. Sharan, Superintending Engineer (C), Gidi Washery.
39. Shri J. P. Das, Superintending Engineer (C), Kargali Washery.
40. Shri P. P. Bugory, Shri U. Kumar, Colliery Managers, Kargali.

41. Shri P. R. Sinha, Colliery Manager, Bokaro.
- 41-A. Shri A. K. Patnaik, Dy. Supdt. of Collieries, Umrer.
- 41-B. Shri K. A. Sinha, Dy. Supdt. of Collieries, Korba.
- 41-C. Shri B. N. Prasad, Dy. Supdt. of Collieries, Giridih.
- 41-D. Shri T. N. Jaggi, Dy. Supdt. of Collieries, Gidi 'A'.
- 41-E. Shri J. Rai, Dy. Supdt. of Collieries, Chalkari.
42. Shri P. L. Ralhan, Colliery Manager, Sawang.
43. Shri R. B. Mathur, Colliery Manager, Jarangdih.
44. Shri C. R. Dass, Colliery Manager, Chalkari.
45. Shri S. S. Rastogi, Colliery Manager, Asnapani.
46. Shri J. N. Uppal, Shri R. R. Bhal, Shri T. P. Basu, Shri R. K. Varma, Colliery Managers, Bhurkunda.
47. Shri T. K. Deb, Colliery Manager (Engineering Division), Bhurkunda.
48. Shri A. S. Prasad, Shri J. K. Dua, Shri P. C. Biswas, Colliery Managers, Saunda.
49. Shri A. N. Singh, Shri S. N. Jha, Shri H. S. Dhillon, Colliery Managers, Sayal (D).
50. Shri S. C. Khara, Colliery Manager, Bachra.
51. Shri S. I. Doshi, Shri S. M. Diddee, Colliery Managers, Bistrampur.
52. Shri S. K. Bhatnagar, Colliery Manager, Duman Hill.
53. Shri M. A. Ubaid, Colliery Manager, Kurasia.
54. Shri A. K. Gulati, Colliery Manager, Korea-I.
55. Shri C. P. Bansal, Colliery Manager, Churcha.
56. Shri B. N. Sarkar, Colliery Manager, Jamuna.
57. Shri G. S. Atwal, Shri K. M. P. Varma, Colliery Managers, Korba.
58. Shri D. G. Raibagkar, Colliery Manager, Surakachar.
59. Shri S. P. Varma, Colliery Manager, Daulbera.
60. Shri P. N. Mathur, Colliery Manager, Nandira.
61. Shri S. De, Sarkar, Colliery Manager, South Balanda.
62. Shri R. N. Bansal, Colliery Manager, Umrer.
63. Shri K. R. Prasad, Colliery Manager, Singrauli.
64. Shri S. Chattapadhyay, Dy. Supdt. of Collieries, Surkachar.
65. Shri D. R. Momidwar, Shri B. C. Mishra, Colliery Managers, Kampti Pilot Mine.
66. Shri A. G. Watwe, Colliery Manager, Monidih.
67. Shri T. N. Raina, Supdt. Central Workshop, Barkakana.
68. Shri O. P. Solti, Supdt. Central Workshop, Korba.
69. Shri D. P. Gupta, Dy. Chief Mining Engineer, Kargali.
70. Shri J. N. Sarkar, Dy. Chief Mining Engineer, Gidi 'A'.
71. Shri P. K. Mallik, Dy. Supdt. of Collieries, Sawang.
72. P. N. S. Pradip, Dy. Supdt. of Collieries, Sayal.
73. Shri U. K. Raja Rao, Dy. Supdt. of Collieries, Silewara.
74. Shri P. M. Singh, Dy. Supdt. of Collieries, I.E.D. Bhurkunda.
75. Shri A. N. Banerjee, Dy. Supdt. of Collieries, Saunda.
76. Shri R. D. Roy, Dy. Supdt. of Collieries, Jarangdih.
77. Shri J. P. Yadav, Training Officer, Orissa Region, Talcher.
78. Shri C. R. Bhattacharjee, Dy. Supdt. of Collieries, Manikpur.
79. Shri M. P. Marayanan, Dy. Supdt. of Collieries, Jamuna.
80. Shri P. M. Kakar, Dy. Supdt. of Collieries, Gidi 'C'.
81. Shri S. K. Mitra, Dy. Supdt. of Collieries, Baohra.
82. Shri A. Pani, Dy. Supdt. of Collieries, Talcher.
83. Shri S. K. Mukerjee, Dy. Supdt. of Collieries, Patherkhara.

APPENDIX III

List of Persons/Organisations who sent written material to the N.C.D.C. Committee

1. Shri P. K. Ghosh, M.P.
2. Shri N. K. Bhatt, M.P.
3. National Coal Organisation Employees' Association.
4. Shri B. K. P. Sinha, Organising Secretary, M.P. Colliery Workers' Federation.
5. Shri Hardeo singh, Hind Mazdoor Sabha, Kurasia.
6. Shri G. M. Taori.
7. Colliery Mazdoor Sangh, Giridih.
8. Coal Workers' Union.
9. Chhatisgarh Coal Mining Mazdoor Sangh.
10. Bihar Koyla Mazdoor Sabha, Dhanbad.
11. Shri S. Lall.
12. Dr. A. Lahiri.
13. Shri S. T. Raja.
14. Shri Kanti Mehta.
15. Shri N. S. Pandey.
16. Shri S. N. Sehgal.
17. Shri A. V. Venkateswaran.
18. Shri A. N. Lahiri.
19. Shri A. B. Guha.
20. Shri G. S. Khosla.
21. Shri K. S. Bhandari.
22. Shri K. S. R. Chari.
23. Shri Jagjit Singh.
24. Shri K. B. Mathur.
25. Shri A. Zaman.
26. Shri R. C. Dutt.
27. Shri Chhedi Lal.
28. Shri S. K. Majumdar.
29. Shri Raj Kumar.
30. Shri J. G. Kumaramangalam.
31. Shri A. H. Azad.
32. Shri D. R. Bagroy.
33. Shri K. Jha.
34. Shri C. S. Kumar.
35. Shri B. L. Wadehra.
36. Shri B. K. Ghosh.
37. Dr. D. P. Dhar.
38. Shri V. P. Sondhi.
39. Shri S. K. Ghosh.
40. Shri S. K. Nargundkar.
41. Shri Y. Krishan.
42. Shri R. N. Singh.
43. Shri J. M. Shrinagesh.
44. Shri J. M. Kitchlu.
45. Mr. K. H. Sallmann of Federal Republic of Germany.
46. Mr. Katani of Federal Republic of Germany.



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APPENDIX IV

List of Persons with whom the NCDC Committee had discussions

Place & date of meeting		Name of the persons interviewed
Calcutta	7-9-67 F.N.	Shri S. K. Nargundkar, Ex-Chairman and Managing Director of N.C.D.C.
Do.	7-9-67 A.N.	Shri A. B. Guha, Ex-Coal Mining Adviser to Govt. and presently a Director of N.C.D.C.
Do.	7-9-67 A.N.	Officers of N.C.D.C.'s Sales Organisation.
Do.	8-9-67 F.N.	(i) Chairman & Secretary of D.V.C. (ii) Officer of N.C.D.C.'s Sales Organisation.
Do.	8-9-67 A.N.	(i) Officers of Eastern Railway. (ii) Officers of N.C.D.C.'s Sales Organisation.
Do.	9-9-67 F.N.	Managing Director, N.C.D.C. and Officers of N.C.D.C.'s Sales Organisation.
Do.	11-9-67 F.N.	Shri Kanti Mehta, Labour Leader and former Director of N.C.D.C.
Do.	11-9-67 A.N.	Shri R. Lall, Head of the Coal Div., M/s. Andrew Yule & Co. Ltd.
Do.	12-9-67 F.N.	(i) Shri A. C. Bose, Coal Controller (ii) Railway Liaison Officer of N.C.D.C.
Do.	12-9-67 A.N.	Officers of Purchase Organisation of N.C.D.C.
Do.	11-9-67 A.N.	Representatives of J.W.C.
Do.	11-9-67 A.N.	(i) Officers of S.E. Railway. (ii) Officers of N.C.D.C.'s Sales Organisation.
Ranchi	.. 25-9-67 A.N.	Shri M. S. Rao, Chairman and Shri R. Prasad, M.D., N.C.D.C.
Do.	25-9-67 A.N.	Shri Kartik Oan, M.P.
Do.	25-9-67 A.N.	Shri B. C. Mitra, M.P.
Do.	26-9-67 F.N.	Shri R. N. Singh, formerly Director of Production, N.C.D.C.
Do.	26-9-67 A.N.	Officers of N.C.D.C. Headquarters.
Kargali	.. 27-9-67 A.N.	17 Officers of Bokaro & Kargali area of N.C.D.C.
Barkakana	.. 28-9-67 F.N.	10 Officers of Karanpura Area M.D., D.G.M.(T) & Ch. Engr. (E&M).
Ranchi	.. 28-9-67 A.N.	Office bearers of N.C.O.E.A
Do.	29-9-67 F.N.	Shri D. R. Bagroy Retd. C.M.E. of N.C.D.C.
Do.	29-9-67 F.N.	All Area General Managers, D.G.M.(T) & Ch. Engr. (E&M).
Do.	30-9-67 F.N.	Shri P. K. Ghosh, M.P.
Do.	30-9-67 F.N.	Shri V. P. Sondi, Retd. Chief of Geology, N.C.D.C.
Do.	30-9-67 A.N.	Shri Y. Krishan, F.C. & C.A.O. of N.C.D.C.
New Delhi	.. 6-10-67 A.N.	Shri J. G. Kumaramangalam, former D.G.M.(A) of N.C.D.C.
Do.	6-10-67 A.N.	Shri Chhedi Lal formerly J.S. in Deptt. of Mines & Metals.
Do.	6-10-67 F.N.	Shri R. C. Dutt, former M.D., N.C.D.C.
	&	
Do.	7-10-67 A.N.	
Do.	23-10-67 F.N.	Shri K. S. R. Chari, Coal Mining Adviser, Deptt. of Mines & Metals and formerly A.G.M. in N.C.D.C.
Do.	23-10-67 A.N.	Shri S. K. Majumdar, former F.C. of N.C.D.C.
Do.	24-10-67 F.N.	Shri S. T. Raja, former M.D. N.C.D.C.
Do.	24-10-67 A.N.	Shri S. N. Sehgal (Retd. Coal Mining Adviser, Deptt. of Mines & Metals.)
Do.	25-10-67 A.N.	Shri N. S. Pandey, former Director of N.C.D.C.
Monidih	.. 21-11-67 F.N.	(i) Shri G. S. Jabbi, D.G. of Mines Safety till 18-11-67. (ii) Shri R.G. Deo, D-G of Mines Safety, from 19-11-67.
C.F.R.I. Jealgora	21-11-67 A.N.	(i) Dr. A. Lahiri, Director, C.F.R.I. (ii) Dr. Bagchi, C.F.R.I.
Monidih	.. 21-11-67 A.N.	A. G. M. and 4 other Officers of Central Jharia Area.
Kunastoria	.. 22-11-67 F.N.	Officers of the Kunastoria Colliery.
Giridih	.. 23-11-67	Officers of Giridih Area.

APPENDIX IV —Contd.

Place & date of meeting		Name of the persons interviewed
Giridih	23-11-67 A.N.	Shri Chapalendu Bhattacharya, Branch President, Colliery Mazdoor Sangh.
Monidih ..	13-11-67 A.N.	(i) Additional Area General Manager, Central Jharia. (ii) Dr. Bagchi, C.F.R.I.
Ranchi ..	24-11-67 A.N.	Financial Controller and Chief Accounts Officer, NCDC.
Do.	25-11-67 F.N.	(i) Chief Auditor, Commercial Audit and Financial Controller, N.C.D.C. (ii) Shri J. Singh, Partner of M/s. Singhi & Co., Auditors of N.C.D.C.
Do.	25-11-67 A.N.	(i) Superintending Engineer, (Geology), N.C.D.C. (ii) Shri Basu of Basu & Co., Auditors of N.C.D.C.
Do.	26-11-67 F.N.	(i) Chief Purchase Officer, N.C.D.C. (ii) Controller of Stores, N.C.D.C.
Do.	26-11-67 A.N.	Chief Internal Audit Officer, N.C.D.C.
Do.	27-11-67 F.N.	Financial Controller and Chief Accounts Officer, N.C.D.C.
Do.	28-11-67 F.N.	Chief Vigilance Officer, N.C.D.C.
Umrer ..	25-12-67 A.N.	17 Officers of the Umrer Project.
Do.	25-12-67 A.N.	A.G.M., DSOC and Accounts Officers of the Umrer Project.
Do.	26-12-67 F.N.	(i) A.G.M., Nagpur and DSOC (Patherkhera). (ii) A.G.M. & DSOC, Umrer. (iii) Dy. Chief Engineer, Maharashtra Electricity Board.
Silewara ..	26-12-67 A.N.	(i) A.G.M., Umrer. (ii) DSOC (Silewara) and two officers of Maharashtra Elect. Board.
Manikpur ..	28-12-67 F.N.	(i) A.G.M., Korba. (ii) DSOC, Manikpur. (iii) Russian Expert. (iv) Shri B. N. P. Sinha, Organising Secretary (M.P.C.W.F.) with his Joint Secretary and 4 other members.
Korba (M.P. Elect. Board).	28-12-67 A.N.	A.G.M. and DSOC Korba and four officers of the M.P. Elect. Board.
Korha (Rest House) of N.C.D.C. ..	28-12-67 A.N.	A.G.M. and the Dy. Financial Adviser.
Banki ..	29-12-67 F.N.	A.G.M. Korba and seven other officers of Banki and Korba Projects.
Banki (Rest House) ..	29-12-67 A.N.	A.G.M., Korba and 12 other officers of Korha, Banki and Surakacher Projects.
Korha (Central Workshop)	30-12-67 F.N. (10-30 Hrs)	(i) A.G.M., Korha. (ii) Chief of the Workshop and Russian Experts. (iii) Russian Experts.
Korha (Rest House) ..	30-12-67 F.N. (12-00 Hrs.)	A.G.M., Korha and 22 other Officers of Korha, Manikpur and the Central Workshop.
Korha (Rest House) ..	30-12-67	9 Officers of Korha Area (individually).
Bisrampur ..	28-4-68	A.G.M., Bisrampur & DSOC, Bisrampur.
Do.	29-4-68	A.G.M. Bisrampur & DSOC Churcha.
Korea ..	30-4-68	A.G.M., Baikunthpur & other Officers of Korea & Duman Hill Collieries.
	1-5-68	(i) Additional A.G.M., Baikunthpur and Officers of Kurasia Colliery. (ii) Shri Hardeo Singh of Hind Mazdoor Sahha. (iii) Representatives of M.P. Colliery Workers Federation.
Baikunthpur ..	2-5-68	(i) Additional A.G.M. Baikunthpur & Bisrampur, Senior D.F.A. & Area Accounts Officers. (ii) Additional A.G.M., Baikunthpur & Deputy Superintendent of Collieries of Jamuna. (iii) 3 DSOCs of Baikunthpur area.
Bisrampur ..	3-5-68	A.G.M., Bisrampur & Officers of Bisrampur Colliery.
Ranchi ..	4-5-68 & 5-5-68	Meeting with Officers of N.C.D.C.
Barkakana ..	28-9-67 F.N.	S/Shri Duhey & Pandey of Colliery Mazdoor Sangh.

APPENDIX V

List of places visited by the NCDC Committee

Calcutta	Churcha
Ranchi	Katkona
Kargali	Bokaro
Barkakana	Jarangdih
Monidih	Sawang
Jealgora (CFRI)	Kathara
Kunastoria	Serampore
Giridih	Kurburbaree
Umrer	Argada
Silewara	Bhurkunda
Manikpur	Saunda
Korba	Bacbra
Banki	Gidi
Bisrampur	Sayal
Kurasia	Duman Hill.
Korea	
Baikunthpur	



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